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Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

SINCE 1871

Volume 136 NOVEMBER 6, 1939 Number 19

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Oil, Paint and Drug Reporter

Founded 1871 by William O. Allison

Member: Audit Bureau of Circulations

Volume 136 | NOVEMBER 6, 1939 | Number 19

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N.P.V.L.A. Discusses Sales Promotion

San Francisco, Nov. 3, 1939

Factors affecting every phase of the merchandising of paint were discussed at the fifty-first annual meeting of the National Paint, Varnish and Lacquer

Ernest T. Trigg

Association, in session here from October 31 to November 3. The association returned to office for another three-year term, its president, Ernest T. Trigg. Other officers elected were:—

Vice-president, Frank L. Sulzberger, of the Enterprise Paint Manufacturing Co., Chicago; treasurer, S. R. Matlack, of Geo. D. Wetherill & Co., Philadelphia; zone vice-presidents, New England, Franklin J. Lane, of the Boston Varnish Company, Boston; Eastern, Roy B. Anderson, of the Brooklyn Varnish Manufacturing Com-

—Continued on page 39

Latin American Trade Center in N.Y. Planned

OPD Washington Bureau
November 1, 1939

Establishment of a Latin American trade center, to be located in Rockefeller Center, New York, was discussed at a meeting here of the representatives of sixteen Latin American countries with retail business leaders and Federal government officials. The purpose of the trade center would be to display Latin American goods which did not compete with United States merchandise.

While plans have not been completed as yet regarding the financial maintenance of the center, Edward J. Noble, Under Secretary of Commerce, who presided at the meeting, said it would be financed either by the Latin American nations or by the United States and those nations jointly. Mr. Noble further explained that the initial step of the plan calls for the sending of a questionnaire to all retailers asking them to list items brought from Europe and Asia before the war. The Latin American nations, Mr. Noble added, will then be presented with these lists, with the idea of determining which articles they could produce.

The meeting was attended by representatives of 100,000 retail stores, and was sponsored by the Department of Commerce with the object of establishing a two-way trade set-up. The Latin American nations sending delegates were Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, the Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Mexico, Nicaragua, Peru, Uruguay and Venezuela.

The present conference was concerned only with department store merchandise, but later conferences may be held on agricultural, mineral and forest products.

Textile Chemists Discuss Investigative Equipment

The development of carbon arc lamps producing light having the qualities of sunlight, and the application of such lamps to industrial uses was discussed at the opening meeting of the season of the New York section of the American Association of Textile Chemists and Colorists held October 27, in the Swiss Chalet, Rochelle Park, N. J. Another discussion centered around a "Projectoscope" demonstration. This instrument, incorporating a system of optics and a light source, is designed for the projection of magnified images of small objects or areas upon a screen and for photo-micrography.

The arc lamp presentation was delivered by Dr. M. J. Dorcas, of the carbon sales division of the National Carbon Company. During his description of the investigations which have resulted in arc lamps which produce light qualitatively like that of the sun, he said that it had been found that only such light as was absorbed by dyes or colors caused photochemical reactions to occur in those colors. He also stated that outdoor sunlight contains considerably more ultra-violet radiations than sunlight which has passed through a glass window; the plate glass filtering out such rays to a certain extent.

Early research with electrodes made up wholly of carbon, he said, showed that they emitted light which differed markedly in its spectral characteristics from natural sunlight. Subsequent investigation disclosed that forming a carbon electrode with a core containing strontium, calcium, chromium, and other chemicals and their mixtures, modified the quality of light emitted. Application of these findings have resulted in cored carbon electrodes which produce light closely resembling sunlight in quality.

Such sun-like electrodes are used by the National Carbon Company, he stated, in its accelerated testing units which have found widespread employment for exposure testing of dyed fabrics and colored or pigmented materials

—Continued on page 74

A.O.A.C. Takes First Action On Superphosphate Definition

OPD Washington Bureau
November 1, 1939

A new definition of superphosphate which would permit the sale of a "synthetic" product, was adopted today at the closing session of the fifty-fifth annual meeting of the Association of Official Agricultural Chemists.

The definition was adopted as "official, first action," and under the rules of the association it does not become final until approved at the next annual meeting. Its adoption followed a heated discussion in the committee on definitions of terms for fertilizers.

The new wording was sponsored by W. H. MacIntire, of the Agricultural Experiment Station, Knoxville, Tenn. It was stated unofficially by some of those present at the committee meeting that the new definition would permit the production of superphosphate by mixing concentrated phosphoric acid with limestone, giving a product which lacks the gypsum content of ordinary superphosphate and which is considered to be of some value as a fertilizer ingredient.

The new definition reads:—"Superphosphate is a commercial phosphate, the phosphoric acid content of which is due chiefly to monocalcium phosphate." The old definition read:—"Superphosphate is the product resulting from mixing rock phosphate and sulphuric acid and/or phosphoric acid."

The New Officers

The association closed its three-day convention by electing as president W. W. Skinner, of the United States Bureau of Agricultural Chemistry and Engineering, Washington, who has served as secretary of the association continuously since 1922. He is succeeded as secretary by H. A. Lepper, of the United States Food and Drug Administration, Washington. L. B. Broughton, of the University of Maryland, College Park, Md., was re-elected vice-president. Additional members of the executive committee are the retiring president, W. S. Frisbie, of the Food and Drug Administration, Washington; J. W. Sale, of the Food and Drug Administration, Washington; G. G. Frary, Vermillion, S. D.; and J. O. Clarke, Chicago.

As usual, the sessions were devoted to discussing progress made during the year in developing new and improved methods of analysis for all products coming under the jurisdiction of State and Federal laws regulating the sale of foods and drugs, products sold to farmers, and related articles subject to chemical tests to determine grade and quality.

Passage of the new Federal food, drug, and cosmetic act caused the association to create new committees to study methods of testing cosmetics and coaltar colors, and it was agreed to divide the drug section into four parts because of the increasing amount of work in this field.

The association's book, Methods of Analysis, which is revised every five

—Continued on page 70

Parcel Post Service To Germany Suspended

OPD Washington Bureau
November 2, 1939

Postmaster-General James A. Farley announced last night that owing to disruption of transportation, the parcel post service to Germany, Czecho-Slovakia, and Danzig, can not be conducted as provided by the agreements for parcel post service with those countries. The parcel post service from the United States to those countries is, therefore, suspended immediately and until further notice.

Until otherwise instructed postmasters will refuse to accept parcel post packages for mailing to Germany, Czecho-Slovakia, and Danzig. Such parcel post packages for those countries as have been mailed or which may be mailed inadvertently hereafter will be returned to the senders and the postage prepaid on the parcels refunded to the senders except in the case of such of the parcels as had been dispatched abroad and returned, if application is made in accordance with section 2211 of the postal laws and regulations.

Drug Law Label Exemption Provided In Regulations

OPD Washington Bureau
November 1, 1939

Proposed regulations postponing the effective date of the labeling provisions of the new food, drug, and cosmetic act as to certain labels were published in the *Federal Register* today by the Food and Drug Administration of the Department of Agriculture.

No hearings will be held on the regulation, but interested parties may submit suggestions and criticisms by November 15, after which date regulations will be formally promulgated.

The regulations provide automatic exemption from designated sections of the act until July 1, 1940, for labeling material as described in the law, and manufacturers coming within this exemption need not apply for individual exemption orders if they comply with the requirements for keeping records.

The text of the regulations follows:—

901. Effective date of certain labeling provisions of the Federal food, drug and cosmetic act temporarily postponed in certain cases. (a) The effective date of the provisions of sections 403 (e) (1); 403 (g), (h), (i), (j), and (k); 502 (b), (d), (e), (f), (g), and (h), and 602 (b) of the Federal food, drug and cosmetic act is hereby postponed to July 1, 1940, with respect to any stock of lithographed labeling which was manufactured prior to February 1, 1939, and to containers bearing labeling which, prior to February 1, 1939, was lithographed, etched, stamped, pressed, printed, fused, or blown on or in such containers, if—

(1) each unit of such stock is identical with every other unit thereof;

(2) such stock is used by the person for whom it was manufactured;

(3) the quantity of such stock held by such person on January 1, 1940, equals or exceeds that used by him during any period of three consecutive months since January 1, 1939;

(4) such person keeps until July 1, 1941, complete records showing the quantity of such stock held by him at the beginning and end of such three-month period;

(5) such person makes such records available at all reasonable hours until July 1, 1941, to any officer or employee of the Food and Drug Administration who requests them;

(6) noncompliance with the sections of the act hereinbefore specified does not make such labeing misleading by reason of its failure to reveal facts material in the light of representations made or suggested by statement, word, design, device, or any combination thereof in such labeling, or material with respect to consequences which may result from the use of the article to which such labeling relates under the conditions of use prescribed in such labeling or under such conditions of use as are customary or usual; and

(7) such labeling would have complied with the requirements of the Federal food and drugs act of June 30, 1906, as amended.

(b) Notwithstanding the provisions of subsection (a), such subsection shall not apply—

(1) to the provisions of section 502 (d) of the act, insofar as such provision relate to morphine, opium, cocaine, heroin, alphaeucaine, betaeucaine, cannabis, chloral, or any derivative of any such substance;

(2) to the provisions of section 502 (e) of the act, insofar as such provisions relate to alcohol, chloroform, or acetanilide, or any derivative or preparation of any such substance; or

(3) to the provisions of section 502 (b), (d), (e), (f), (g), and (h) of the act, insofar as such provisions relate to drugs to which section 505 of the act applies.

Armour and Lewis to Form Illinois Inst. of Technology

The Armour Institute of Technology and the Lewis Institute have entered into an agreement to consolidate into a new technological center for Chicago. This is the first occasion on which two colleges of engineering have ever agreed to merge their interests to produce an institution of more important scope. The name of the new school is to be Illinois Institute of Technology.

The actual consolidation of the educational program will be completed by September, 1940, and the balance of this year will be given over to planning an integration of activities. For the time being, it will be necessary to operate both the Armour and Lewis plants, but the complete development of the new center of technology contemplates the acquisition of a new, well-planned campus, conveniently located, to meet the needs of its broad objectives.

Illinois Institute of Technology will be controlled by a board of trustees of fifty-five members, made up of the present trustees of both Armour and Lewis. It will be an objective of the new institution to integrate the fields of science, engineering, management,

—Continued on page 61

Closing Market Developments

November 3, 1939

London Closing Cable

London, Nov. 3, 1939

Beeswax was quoted 175s per hundredweight; quicksilver, warehouse, $109 per flask, secondhands, £29 to £30.

Cottonseed Oil Rallies

Refined cottonseed early futures rallied on Friday after a further decline at the opening of the market. March dropped to 6.70c., then recovered to 6.87c. Offerings were light and shorts covered. Lard also opened lower and then recovered. Southern markets for cottonseed products were quiet.

Cinchophen Advanced

Prices on cinchophen were advanced 15c. per pound, making $3.15 per pound the prevailing market for 100 pound lots; 5 pound lots, $3.90; 1 pound lots, $3.42.

Barbital Firm at Recent Rise

Quotations on barbital ranged $3.25 to $3.62 per pound according to quantity. The inside price prevailed on 100 pound lots. Resellers quoted 100 pound lots at $3.50.

Tetrachloride of Tin Lower

Anhydrous tetrachloride of tin was ½c. lower at 26½c. per pound late in the week. The decline reflected the easier tone in the Straits metal which was quoted nominally around 53c. per pound.

Foreign Trade Rules

Information recently published by the Department of Commerce in foreign tariff and related trade regulations include the following:—

Nicotinized Alcohol:—A Cuban presidential decree authorizes the importation in wholesale containers of nicotinized alcohol made up according to a prescribed formula, for use exclusively in the manufacture of cigars, cigarettes, chewing tobacco, pipe tobacco, snuff, and tobacco paste.

Paraguayan Imports:—A Paraguayan decree extended until November 6, 1939, the decree of May 25, 1938, which imposed an import duty of 20 percent ad valorem on a miscellaneous variety of articles, listed under fifty items of the tariff, which had formerly been duty-free.

Pharmaceuticals:—In order to avoid further increases in prices, Egypt has decreed that the selling price of imported pharmaceuticals at the levels prevailing August 25, plus an increase not to exceed 5 percent.

Pharmaceuticals:—All medicinal manufacturers and packagers have been directed to register with the Colombia Ministry of Labor and Hygiene. The order affects all establishments, whether domestic or branches of foreign concerns, including those engaged in repackaging medicinal and pharmaceutical materials imported in bulk.

Small Business Ass'n Seeks Financing Facilities

Problems pertaining to the financing of small business enterprises were discussed today at a meeting of the Smaller Business Association of New York, New Jersey and Connecticut, Inc., with the Securities and Exchange Commission. Various plans for providing additional financing facilities for small business were outlined. Among those present at the meeting were W. C. Hardesty, of the W. C. Hardesty Company, president of the Smaller Business Association, and members of the commission's staff studying the financing of small business for the Temporary Economic National Committee.

Penn. Salt to Erect New Plant in Philadelphia

The Pennsylvania Salt Company has sold its plant in South Philadelphia. The plant was sold to the General Electric Company as a site for a $45,000,000 generating station. L. T. Beale, president of the Pennsylvania Salt, said a new plant would be in the Philedalphia area.

Chemical Price Status Easier

There was a slight excess of downward tendency among prices for heavy and fine chemicals last week. Price activity was largely among pharmaceuticals. The number of articles affected in all the markets was small.

Demand in general was lighter; although the call for materials normally seasonal continued good. Assurances on first-quarter prices eased buyers' tension.

Prices were advanced on European quicksilver, cinchophen, some Congo copals, and steamed bonemeal.

Prices were reduced on natural menthol, gum rosin, gum turpentine, casein, dammars, some Congo copals, domestic dried blood, and Japanese sardine meal.

The REPORTER'S composite index number of prices for heavy and fine chemicals was not appreciably affected and remained at 127.8 (100=average at August 1, 1914). In comparison with average prices in 1926 (as 100), the REPORTER'S index number is now 90.5, compared with 88.8 at this time last year and 90.2 in 1937.

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Oil, Paint and Drug Reporter, Volume 136, No. 19, November 6, 1939. Published weekly by Oil, Paint and Drug Publishing Company, Inc., 59 John Street, New York, U.S.A. Annual subscription prices:—United States and possessions, Cuba, Mexico, Central America, and South America, $5; Canada and Newfoundland, $7; other countries, $10. Entered as second-class matter January 15, 1884, at the Post Office at New York, N. Y., under the Act of March 6, 1879.

Animal Products Import Regulations Revised

OPD Washington Bureau
October 31, 1939

New regulations for the control of communicable diseases of livestock in the importation of animals and animal products were promulgated today by the Bureau of Animal Industry of the Department of Agriculture to become effective February 1, 1940.

The new regulations are in many respects less restrictive than those which have been in effect since 1934, although some of the provisions have been tightened. In general, import restrictions have been lightened as they concern anthrax because of more widespread use of methods of controlling this disease both in this country and abroad, but the restrictions have been increased where they concern hoof and mouth disease and rinderpest.

Restrictions on the type of disinfectants to be required are also to be lightened, as the bureau plans sometime prior to February 1 to authorize the use of at least two new disinfectants recently developed which are thought to be cheaper and less injurious to leather and other products than those now required. Heat treatment will continue to be considered a satisfactory method of sterilization, and in some instances the amount of heat required by the new regulations is less than present requirements.

The regulations cover imports of such products as hides, hair, bristles, gluestock, bonemeal, bloodmeal, tankage, blood albumen, and animal glands.

The regulations were published in the *Federal Register* of October 31, and mimeographed copies will be available from the Bureau of Animal Industry within a short time.

Domagk Declines Nobel Prize

Berlin, Nov. 1, 1939

The 1939 Nobel prize for physiological medicine has been declined by Professor Gerhard Domagk of Germany. It is reported here he has written to the Stockholm committee, thanking them for the honor conferred on him, but pointing out that, under the present law, no German is allowed to accept Nobel prizes.

Professor Domagk, director of the research at the I. G. Farbenindustrie laboratory at Elberfelt, was awarded the prize for his production of prontosil, used in treatment of infectious diseases, from sulphanilimide, a red dye previously important only to the dye industry.

Cuban Manganese Co. Gets U.S. 25,000 Ton Award

OPD Washington Bureau
October 31, 1939

The procurement division of the Treasury Department today awarded two contracts for the purchase of ferromanganese ore for military stock piles under the critical materials act.

Awards went to the Cuban American Manganese Corporation, New York, N. Y., for 25,000 long tons of ore at 61.2 cents per long ton unit of contained manganese, c.i.f. Baltimore harbor, or a total of $765,000; and to Greenbrier Mining Corporation, White Sulphur Springs, West Virginia, for 5,000 long tons of ore at 75 cents per unit, f.o.b. cars, Curtis Bay, Md., or a total of $180,000.

Other bids are still being studied and more awards may be made at a later date. Both awards are for grade B manganese, specifications for which are manganese, 48 percent; iron, 7 percent; silica, 9 percent; phosphorous, 0.12 percent; alumina, 3 percent; zinc, 1 percent.

The Cuban American company will ship the ore from its mines at San Diego, Cuba, and the ore is free of duty. Its specifications are:—Manganese, 50 percent; iron, 4 percent; silica, 1.04 percent; phosphorous, 0.12 percent; alumina, 5 percent; zinc, trace.

The Greenbrier company gave the following specifications for its ore:—Manganese, 48 percent; iron, 7 percent; silica, 9 percent; phosphorous, 0.18 percent; alumina, 6 percent; zinc, 1 percent.

Alcohol Production Reported for 1938-39

Production of ethyl alcohol amounted to 201,017,546 proof gallons during the fiscal year ended June 30, 1939. This compared with 201,033,858 proof gallons produced in the fiscal year 1938 and 223,181,228 proof gallons produced in the fiscal year 1937, according to the Bureau of Internal Revenue. Withdrawals in the fiscal year 1939 exceeded production by 713,952 proof gallons and amounted to 201,731,498 proof gallons, compared with 196,878,568 proof gallons in the fiscal year 1938 and 215,220,823 proof gallons in the fiscal year 1937.

Denatured alcohol production amounted to 100,740,510 wine gallons in the fiscal year 1939, compared with 94,607,741 wine gallons produced in 1938 and 102,202,659 wine gallons produced in 1937. Withdrawals in 1939 amounted to 99,872,629 wine gallons, compared with 94,981,204 wine gallons in 1938 and 103,165,980 wine gallons in 1937. Withdrawals in 1939 consisted of 82,668,014 wine gallons of specially denatured alcohol and 17,204,615 wine gallons of completely denatured alcohol, the former representing an increase of 13,414,756 wine gallons and the latter a decrease of 8,523,331 wine gallons compared with 1938. Withdrawals of specially denatured alcohol were the greatest of any year of record and constituted 82.8 percent of the total withdrawals of denatured alcohol in 1939, compared with 72.9 percent in 1938 and 77.2 percent in 1937.

Ethyl Alcohol

Operations of Plants and Warehouses

(Number of plants operated, *36 in 1938-39; 36 in 1937-38; number of bonded warehouses, 63 in 1938-39; 68 in 1937-38.)

	—Proof gallons— 1938-39.	1937-38.
Production	201,017,546	201,033,858
Removed to bonded warehouses	200,055,093	200,343,151
Withdrawals from bond, total†	201,731,498	196,878,568
Tax-paid	22,150,969	28,976,609
Tax-free, total	179,580,529	167,901,959
For denaturation†	175,644,641	164,263,210
For hospital and scientific use	1,931,695	1,849,899
For use of U. S. and subdivisions	1,037,712	950,760
For export	198,396	167,534
For medical, beverage and other auized uses in Puerto Rico	748,085	670,556
Losses in warehouses	496,086	524,879
Losses in transit	38,188	41,048
Stocks in bonded warehouses June 30‡	30,860,351	32,046,672

Materials Used

Molasses, gals.	158,908,347	162,557,843
Grain—		
Corn, lbs.	156,650,225	189,235,346
Malt, lbs.	21,131,972	26,832,102
Rye, lbs.	2,398,507	5,386,117
Other, lbs.	157,836	$363,695
Ethyl sulphate, gals.	35,388,995	26,577,150
Sulphite liquor, gals.	24,949,950	.....
Pineapple juice, gals.	1,593,687	2,007,339
Crude alcohols mixture.	1,227,112	.....
Potatoes, lbs.	743,411	.....
Manioca meal, lbs.	.....	156,296
Cellulose pulp and chemical mixtures	149,024	.....
Miscellaneous	130,605	16,350

* Includes 2 experimental plants in 1938 and 1 in 1939.

† Includes 666,271 proof gallons in 1938 and 806,927 proof gallons in 1939 transferred to denaturing plants by alcohol plants not having bonded warehouses.

‡ Stocks in transit between bonded warehouses and quantities in receiving tanks of alcohol plants awaiting transfer to bonded warehouses not computed.

§ Includes 17,114 pounds of diamalt.

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Oil Production Hearings To Start This Week

OPD Washington Bureau
November 1, 1939

Hearings will be held next week in the investigation of petroleum production practices being made by a special committee of the house headed by Representative William P. Cole of Maryland.

Only government officials will appear, and at the close of the hearings the committee will decide whether to hold other hearings in Washington or in the oil regions. The hearings are expected to deal with matter related to the bill introduced in the last session of Congress by Mr. Cole at the request of the Department of the Interior, which would place control of conservation under the federal government.

The schedule of these hearings is:—November 6, representatives of the U. S. Geological Survey; November 7, representatives of the Bureau of Mines; November 8, Secretary Harold L. Ickes of the Interior Department; November 9, Army and Navy officials; November 10, representatives of the National Resources Planning Board.

U.S. Research on Oils, Fats To Be Directed by Skau

OPD Washington Bureau
November 3, 1939

Dr. Evald L. Skau has been appointed senior chemist in the oil, fat and protein division of the Southern Regional Research Laboratory, New Orleans, Louisiana, Dr. Henry G. Knight, chief of the Bureau of Agricultural Chemistry and Engineering, announced today. Dr. Skau's investigations will involve a fundamental study of various physical and chemical methods of separation of the fatty acids and glycerides, of cottonseed and peanut oils, so that these compounds and derivatives thereof may be made available commercially from this source.

Dr. Skau holds a Ph.D. degree in physico-organic chemistry from Yale University. He taught for a number of years at Trinity College in Hartford, Connecticut, and has also done considerable consulting work. For two years he was National Research Coun-

—*Continued on page 57*

Ethyl Gas Formula Suit Set for December 4

Trenton, N. J., Nov. 1, 1939

Trial of a $500,000,000 suit over profits from the sale of ethyl gasoline, scheduled to start in Chancery Court today, was postponed until December 4 by Vice-Chancellor Malcolm G. Buchanan, who, in granting the postponement, commented that the case was "stupendous fraud on one side or the other."

The suit was instituted by the Howard-Vaughan Company, Buffalo, N. Y., against the Standard Oil Company of New Jersey, the Socony-Vacuum Oil Company, the Ethyl Gasoline Corporation, E. I. du Pont de Nemours & Co., and the General Motors Corporation. The Howard-Vaughan Company charged that a formula for the manufacture of ethyl gasoline has been obtained by theft.

In asking for a postponement, Charles S. Mackenzie, counsel for the Howard-Vaughan Company, told the court that his two principal witnesses had been prevented from appearing by the defendants. He alleged that Dr. William P. Gerlach, Beverly Hills, Calif., one of his witnesses, had been offered a $5,000,000 bribe, which bribe, Mr. Mac-

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U. S. Chemical Exports Gained 40% in September

OPD Washington Bureau
November 2, 1939

Total exports of American chemicals and related products aggregated $20,000,000 in value during the month, which was a 40 percent increase over the $14,300,000 recorded in September of last year, according to the Bureau of Foreign and Domestic Commerce. Imports decreased to $11,338,000 from $13,800,000 for September last year.

By classes the largest gain was recorded in exports of industrial chemicals, shipments of which were valued at $4,151,700 in September compared with $1,940,000 in the corresponding month of last year. In this group, shipments of sodium compounds increased from 42,000,000 to 94,000,000 pounds.

Sharp gains were also made in exports of medicinal products, shipments of which were valued at $2,090,000 during the month against $1,422,000 in September 1938. In this group exports of biologics increased in value from $222,500 in September 1938 to $413,550 in the current September; non-proprietaries from $450,000 to $674,300; and proprietaries, from $695,600 to $831,000.

Among exports of coaltar products, shipments of dyes, colors, stains, and similar products advanced sharply to 1,023,750 pounds valued at $610,000 in September from 494,000 pounds valued at $321,700 in the corresponding month of last year. Total exports of all coaltar products in September, including dyes, were valued at $1,114,000 against $1,021,000 in the same month of 1938—the gain recorded in dyes and similar products being offset by a sharp decline in exports of benzol, shipments of which decreased from 1,833,000 gallons in September 1938 to 48,000 gallons in the current month.

Among the fertilizers, exports of potash materials advanced sharply to 17,214 tons valued at $639,500 in September from 4,189 tons valued at $139,300 in the corresponding month of last year. Total exports of all fertilizers in September, including potash, were valued at $1,944,000 in September compared with $1,326,000 in the corresponding month of last year.

Other items on the chemical and related products export list, which recorded gains in September over shipments during the corresponding month of 1938, included naval stores, exports of which increased in value from $928,600 to $1,740,500; vegetable tanning extracts, from $107,550 to $238,000; chemical specialties, from $3,141,000 to $3,802,700; essential oils, from $180,000 to $321,500; paint products, from $1,493,300 to $2,190,000; soaps, from $233,390 to $347,500; toilet preparations, from $523,000 to $742,000; and printing inks, from $84,000 to $133,000, according to an analysis of the trade statistics prepared by the Chemical Division.

—*Continued on page 34*

L.H. Brown Awarded Vermilye Medal

Philadelphia, Nov. 2, 1939

Lewis H. Brown, president of the Johns-Manville Corporation, New York, has been named by the Franklin Institute as the first recipient of the Vermilye Medal. Mr. Brown was voted award for "his brilliant work in executive management, in industry." Presentation of the medal will be made November 14.

Lewis H. Brown

A native of Iowa, Mr. Brown entered the paper manufacturing industry in In-

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Oils and Fats Statistics: Third Quarter

Production of vegetable, animal and fish oils and fats during the quarter ended September 30, exclusive of refined oils and derivatives, was 1,225,547,846 pounds, according to preliminary statistics issued by the Bureau of the Census at Washington. Production of vegetable oils was 583,424,894 pounds, animal fats 480,143,279 pounds, greases 93,577,651 pounds and fish oils 68,402,042 pounds. Importations of chinawood oil during the quarter were 16,879,490 pounds, oiticica oil 7,133,859 pounds, perilla oil 14,519,321 pounds, palm oil 70,017,878 pounds, coconut oil 65,100,469 pounds and whale oil 17,065,155 pounds.

The following tables show the domestic production and consumption and imports of the principal technical and edible oils and fats during the quarter ended with September and the factory and warehouse stocks at the close of the period:—

Vegetable Oils

	—Pounds— Factory operations for the quarter ending Sept. 30, 1939. Production.	Consumption.	Factory and warehouse stocks Sept. 30, 1939.
Chinawood	.....	20,091,747	33,752,577
Perilla	.....	10,431,027	20,117,087
Castor	16,638,565	10,949,333	14,136,277
Peanut, virgin and crude	5,905,000	16,236,621	2,776,629
Peanut, refined	15,442,270	21,606,156	25,924,980
Coconut, crude	61,948,683	143,264,519	197,485,496
Coconut, refined	70,338,094	52,358,903	12,100,188
Corn, crude	39,097,837	39,827,485	16,344,545
Corn, refined	36,033,268	17,793,043	7,664,929
Soybean, crude	74,002,201	88,821,515	17,507,835
Soybean, refined	77,663,188	90,246,581	26,157,880
Palm, crude	.....	56,659,643	105,615,106
Palm, refined	22,747,862	31,389,363	19,930,281
Babassu, crude	16,220,213	20,468,541	5,991,949
Babassu, refined	8,426,525	6,814,765	971,103
Animal Fats			
Lard, neutral	495,934	576,206	218,158
Lard, other edible	303,775,296	3,030,697	79,552,291
Tallow, edible	21,834,593	18,696,025	5,366,304
Tallow, inedible	152,753,232	230,473,098	232,063,911
Greases			
White	16,632,967	13,012,128	8,276,878
Yellow	21,252,224	11,392,013	10,865,430
Brown	19,337,568	13,769,968	12,258,451
Bone	7,274,384	791,343	1,819,095
Tankage	12,619,520	1,387,180	3,478,559
Garbage or house	10,557,157	7,791,469	5,913,856
Wool	2,349,588	1,440,613	4,051,986
Other Products			
Shortening	405,330,858	192,704	36,538,713
Hydrogenated oils	210,250,904	203,011,771	21,727,543
Fatty acids	29,823,714	26,472,059	10,752,456
Fatty acids, distilled	9,795,928	4,408,448	3,034,168
Red oil	11,812,092	8,699,276	6,501,060
Stearic acid	7,807,424	3,958,236	3,919,664
Glycerin, crude 80% basis	44,676,604	45,868,404	18,187,201
Glycerin, dynam'te	13,857,871	8,977,922	20,240,423
Glycerin, chemically pure	22,627,466	6,999,153	45,965,490

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Japanese Chemical Exports To Latin Amer. Reported

Exports of chemicals and allied products from Japan to Central America, the West Indies, and South America were valued at $1,150,000 during the year 1937, notwithstanding the fact that hostilities between Japan and China developed in that time, according to data compiled by the Chemical Division of the Bureau of Foreign and Domestic Commerce. The report is a part of the current program of the bureau analyzing Latin American trade.

Argentina was the largest purchaser, about $350,000 worth having been shipped there; followed by Mexico with $300,000, Brazil with $250,000, and Peru with $75,000. The United States, it was said, is probably the largest foreign customer for Japanese chemicals and allied materials, $6,000,000 worth having been shipped in 1937. The bulk of Japanese exports are shipped to other Eastern countries and Africa. The following table lists in kin (1.325 pounds) the more important commodi-

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Consulting Chemists Name Alvin Purdy President

Alvin C. Purdy was elected president of the Association of Consulting Chemists and Chemical Engineers, Inc., at the annual meeting of that group in the Chemists' Club, this city, October 24. Other officers elected were:—Vice-president, Louis Weisberg; secretary, Bernard L. Oser; treasurer, Jerome Alexander; executive secretary, Robert T. Baldwin. Newly elected directors were:—Charles V. Bacon, Stephen Laufer, and Frank A. Strauss.

GANE'S
MEDICINAL CHEMICALS

ALKALOIDS

ALLANTOIN

AMINOPHYLLINE
U. S. P.

BARBITAL
U. S. P.

BARBITAL
Sodium

BENZOCAINE
U. S. P.

EPHEDRINE
Alkaloid
Hydrochloride
Sulphate

PHENOBARBITAL
U. S. P.

PHENOBARBITAL
Sodium, N. N. R.

PROCAINE HYDROCHLORIDE
U. S. P.

SULFANILAMIDE

EPHEDRINE, NATURAL AND SYNTHETIC

TRADE MARK TRADE MARK

GANE AND INGRAM
INCORPORATED

OFFICE:
43 WEST 16th STREET, NEW YORK

FACTORIES:
CARLSTADT, N. J. NEWARK, N. J.

AROMATIC PRODUCTS

BENZOPHENONE
BENZYL ACETATE
BENZYL ALCOHOL
BENZYL BENZOATE
BENZYL PROPIONATE
BENZYL SALICYLATE
BENZYLIDENE ACETONE
BROMSTYROL
CINNAMIC ALCOHOL
CINNAMIC ALDEHYDE
CITRAL
CITRONELLA OIL SUBSTITUTE
CITRONELLOL
DIMETHYL ANTHRANILATE
ETHYL ANTHRANILATE
ETHYL BENZOATE
GERANIOL, for Soap
GERANIOL, Various Grades
GERANYL ACETATE
IONONE 100%
IONONE C. P., Waterwhite
MENTHOL SYNTHETIC 300-320
MENTHOL SYNTHETIC FUSED
MENTHONE
METHYL ANTHRANILATE
METHYL BENZOATE
METHYL CINNAMATE
METHYL NAPHTHYL KETONE
Crystal and Liquid
METHYL PHENYL ACETATE
METHYL PHENYL PROPIONATE
MUSK AMBRETTE
MUSK KETONE
MUSK XYLOL
PARA CRESOL METHYL ETHER
PHENYL ETHYL ACETATE
PHENYL ETHYL PROPIONATE
ROSEPHENONE
VIOLET (Ionone)

MENTHOL, U. S. P.

A. MASCHMEIJER, JR., INC.
45 WEST 16th STREET, NEW YORK, N. Y.

Current Market Quotations

November 3, 1939

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When not otherwise indicated, quotations are f.o.b. New York prices on large lots. Price changes and trends are noted in the market reports on other pages, with other informative comment. The locations of the several reports are indicated on page 4.

A

Acacia (see Gum, Arabic)
Acetal, dms., dlvd.....lb. .75 - 1.00
Acetaldehyde, 99%, dms., 55 & 110 gls., works..lb. .11 - —
5 & 10 gls., works.....lb. .14 - —
Acetamide, CP, kgs., 5,000 lbs., a year, works..lb. .36 - —
200-lb. lots, works.....lb. .38 - —
100 lb. lots, works.....lb. .55 - —
5 to 50-lb. lots, works....lb. .70 - —
tech., kgs., 5,000 lbs. a year, works..lb. .28 - —
200-lb. lots, works.....lb. .30 - —
100-lb. lots, works.....lb. .45 - —
5 to 50-lb. lots, works....lb. .50 - —
Acetanilide, tech., bbls.....lb. .22 - —
95%, bbls.....lb. .29 - —
USP, cryst., bbls., 2,000 lb. lots lb. .32 - —
smaller lots.....lb. .33 - —
dms., 25 lb. lots.....lb. .38 - —
kgs., 2,000 lb. lots.....lb. .33 - —
smaller lots.....lb. .34 - —
powd., bbls., 2,000 lb. lots..lb. .30 - —
smaller lots.....lb. .31 - —
dms., 25 lb. lots.....lb. .36 - —
kgs., 2,000 lb. lots.....lb. .31 - —
smaller lots.....lb. .32 - —
Acetoacetanilide, dms.....lb. .47 - .65
Acetone, C.P., dms., c.l, dlvd..lb. .07 - .07½
l.c.l., dms., dlvd.....lb. .07½- .08
tanks, dlvd.....lb. .06 - .06½
Methyl (see M).
Acetophenone, bots.....lb. 1.30 - 1.45
cns., 25 lbs.....lb. 1.15 - 1.25
dms., 100 lbs.....lb. 1.05 - —
Acetophenetidin, bbls., kgs., 1,000 lbs..lb. 1.00 - —
50 lbs. .....lb. 1.02 - —
25 lbs.....lb. 1.05 - —
Acid, abietic, dms., c.l., f.o.b. all points in U. S. E of and including Kans., Neb., N.D., Okla., S. D., Texas E. of Austin and Brownsville..lb. .08¾- —
l.c.l., same terms.....lb. .09 - —
Acetic, coml. or redist., 28%, bbls..100 lbs. 2.23 - 2.45
cbys.....100 lbs. 2.73 - 2.98
56%, bbls.....100 lbs. 4.15 - 4.40
cbys.....100 lbs. 4.65 - 4.90
70%, bbls.....100 lbs. 5.17 - 5.42
cbys.....100 lbs. 5.67 - 5.92
80%, bbls.....100 lbs. 5.89 - 6.14
cbys.....100 lbs. 6.39 - 6.64
glacial, nat., CP., cbys.100 lbs.14.00 - —
99.5%, bbls.....100 lbs. 7.62 - 7.87
cbys.....100 lbs. 8.12 - 8.37
tanks .....100 lbs. 5.00 - —
USP, bbls.....100 lbs.10.25 -10.50
cbys.....100 lbs.10.75 -11.00
synth., 99.5%, al. dms., 100 lbs. 8.43 - 8.68
cbys.....100 lbs. 8.93 - 9.18
USP, al. dms.....100 lbs.10.25 -10.50
cbys.....100 lbs.10.75 -11.00
pure, 80%, bbls.....100 lbs. 3.28 - 3.53
cbys.....100 lbs. 3.78 - 4.03
36%, bbls.....100 lbs. 3.66 - 3.91
cbys.....100 lbs. 4.16 - 4.41
60%, bbls.....100 lbs. 6.15 - 6.40
cbys.....100 lbs. 6.65 - 6.90
80%, bbls.....100 lbs. 7.68 - 7.93
cbys.....100 lbs. 8.18 - 8.43

Acetic acid price differentials above are for c.l. and l.c.l. quantities; the prices apply div'd at destination in the following States: Conn., Dela., D. of C., Md., Mass., N. J., N. Y., N. and S. Car., R. I., Penna., and Va. For all other States except Wash., Ore., and Calif., prices are f.o.b. works, frt. equalized.

Acid, acetic, anhydride, dms., c.l., frt. alld..lb. .10¾- .11¼
l.c.l., dms., frt. alld.....lb. .12 - .13
Acetylsalicylic, special, USP, fine cryst., gran., 200-lb. bbls..lb. .45 - —
standard, USP, fine cryst., gran., 20 or 40 mesh, 200-lb. bbls..lb. .40 - —
powd., 80 mesh, 200-lb. bbls..lb. .40 - —
Anthranilic, refd., bbls.....lb. 1.15 - 1.20
tech., bbls.....lb. .75 - —
Arsenous, tech. (see Arsenic, White).
USP, powd., dms., kegs...lb. .23 - .35
Ascorbic, bots., dms.....oz. 2.75 - 3.00
Battery, cbys, c.l., E. works, 100 lbs. 1.60 - —
l.c.l., 25 or more, E. works, 100 lbs. 1.85 - —
10-24, E. works....100 lbs. 1.95 - —
1-9, E. works.....100 lbs. 2.55 - —
Benzoic, tech., bbls., 4,000 lbs. or more..lb. .43 - —
1,000 to 3,900 lbs.....lb. .44 - —
900 lbs. or less.....lb. .47 - —
USP, bbls., 4,000 lbs. or more lb. .54 - —
1,000 to 3,900 lbs.....lb. .55 - —
900 lbs. or less.....lb. .58 - .60
dms., 4,000 lbs. or more..lb. .55 - .56
1,000 to 3,900 lbs.....lb. .56 - (57
900 lbs. or less.....lb. .59 - .60
Boric, tech., 99.5%, gran., bbls., contracts, 80 tons, dlvd. ton.106.00 - —
c.l., dlvd.....ton.111.00 - —
l.c.l., ex whse.....ton.118.00 -123.00
powd., bbls., contracts, 80 tons, dlvd., ton..111.00 - —
c.l., dlvd.....ton.116.00 - —
l.c.l., dlvd.....ton.123.00 -138.00
sks., contracts, 80 tons, dlvd..ton.96.00 - —
c.l., dlvd.....ton.101.00 - —
l.c.l., ex whse.....ton.123.00 -138.00
sks., contracts, 80 tons, dlvd..ton.101.00 - —
c.l., dlvd.....ton.106.00 - —
l.c.l., ex whse.....ton.113.00 -128.00
USP, $25 per ton higher.
Butyric, 99%, dms., c.l., S. Charleston, W. Va..lb. .22 - —
l.c.l., same basis.....lb. .23 - —
tanks, same basis.....lb. .21 - —
Broenner's, bbls.....lb. 1.11 - —
Camphoric, cns.....lb. 5.50 - 5.70
Capric, dms.....lb. .14 - .14¼

Acid, caproic, dms., works....lb. .35 - .40
Carbonic (see Phenol).
Castor oil, split, dms.....lb. .15½- .16
Chlorosulphonic, dms., c.l., works..lb .0350- —
5-drum lots, works.....lb. .04 - —
single drum.....lb. .05 - —
tanks works.....lb. .03 - —
Chromic, 99%, dms., c.l., dlvd. N. Y..lb. .15¼- —
l.c.l., 5 tons, dlvd. N. Y. lb. .15¾- —
Dms., smaller quantities, dlvd., N. Y..lb. .16¼- .17¼
Cinnamic, refd., bots.....lb. 2.85 - 3.25
Citric, cryst., gran., bbls., car lots..lb. .20 - —
10,000-lb, lots, one shipt. lb. .20½- —
smaller lots.....lb. .21 - —
anhyd., gran., dms., 10,000 lbs., 1 shipt..lb. .23 - —
smaller lots.....lb. .23½- —
Citric acid quotations on powder are ½c. higher than on granular. Keg packing is ½c. higher than barrels. Prices are f.o.b., N. Y. Chicago and St. Louis deliveries are ½c. higher than N. Y.
Cleve's, bbls.....lb. .57 - —
Coconut oil, dms.....lb. .12 - .12½
Corn, dist., dms.....lb. .10 Nom.
Cottonseed oil, dist., dms....lb. .08¾- .09½
tanks .....lb. .08¼- —
Cresylic, high-boil, dom., c.l., works, frt. equld..gal. .58 Nom.
l.c.l., same basis.....gal. .60 Nom.
Special blends, dom., c.l., frt. equaled..gal. .61 Nom.
l.c.l., same basis.....gal. .63 Nom.
low-boil, dms., c.l., works frt. equaled..gal. .58 Nom.
l.c.l., same basis.....gal. .60 Nom.
Imported, pale, dms.....gal. No prices
Crotonic, bbls., dlvd.....lb. .21 - —
smaller containers, dlvd....lb. .50 - —
Diethylbarbituric (see Barbital)
Formic, dom., seaboard, 90% cbys., f.o.b. stock points, c.l..lb. .10½- —
l.c.l., 25 and over.lb. .11 - —
1-24 .....lb. .11½- —
inland territory, cbys., c.l.lb. .1185- —
l.c.l., 25 and over.....lb. .1235- —
1-24 .....lb. .1285- —
southern territory, cbys., c.l., lb. .1170- .1240
l.c.l., 25 and over.....lb. .1220- .1290
1-24 .....lb. .1270- .1320
Fumaric, bbls.....lb. .75 - —
Gallic, tech., bbls.....lb. .70 Nom.
N. F., VI, bbls., 200 lbs., 5 or more..lb. .77 Nom.
single bbls.....lb. .80 Nom.
fib. dms., 25 lbs.....lb. .81 Nom.
Gamma, bbls.....lb. .85 - —
Gluconic, tech. 50%, bbls., 500 lbs..lb. .20 - —
H, bbls.....lb. .45 - —
Hydriodic, 47%, bots.....lb. 2.30 - —
5-lb. bots.....lb. 2.51 - —
57%, bots.....lb. 2.75 - 2.90
Hydrobromic, 10% dilut., USP, lb. .20 - .21
pure, 34% conct., cbys.....lb. .42 - .44
Hydrochloric (see Muriatic).
Hydrocyanic, cyls, works....lb. .80 - 1.00
Hydrofluoric, 30%, bbls.....lb. .06 - .06½
lead cbys.....lb. .08 - .08½
48%, lead cbys.....lb. .10½- .11
52%, lead cbys.....lb. .11½- .12
60%, lead cbys.....lb. .14 - .14½
Hydrofluosilic, 30-35%, 420 lb. bbls..lb. .09 - .09¼
Hypophosphorus, USP, 30%, djns..lb. .75 - .80
Lactic, tech., dark, 22%, bbls., c.l., works..100 lbs. 2.50 - —
l.c.l., bbls., works..100 lbs. 2.75 - —
cbys., works....100 lbs. 3.75 - —
44%, bbls., c.l., works, 100 lbs. 5.50 - —
l.c.l., bbls., works..100 lbs. 5.75 - —
cbys., works....100 lbs. 6.75 - —
light, 22%, bbls., c.l., works, 100 lbs. 3.50 - —
l.c.l., bbls., works..100 lbs. 3.75 - —
cbys., works....100 lbs. 4.75 - —
44%, bbls., c.l., works, 100 lbs. 6.50 - —
l.c.l., bbls., works..100 lbs. 6.75 - —
cbys., works....100 lbs. 7.75 - —
50%, edible, 20 and over, bbls., cbys..lb. .10¼- .11¼
plastic grade.....lb. .12¼- .13¼
5 to 19, edible, bbls., cbys., lb. .11 - .12
plastic grade.....lb. .12¾- .13¾
1 to 4, edible, bbls., cbys., lb. .11½- .12½
plastic grade .....lb. .13¼- .14½
80% 5 and over, bbls., cbys..lb. .21 - .22
1 to 4 bbls., cbys.....lb. .21½- .22½
USP, XI, 85%, cbys.....lb. .43 - .45
USP, VIII, 75%, cbys.....lb. .41 - .43
Lauric, dist., tech., dms....lb. .15¼- .15¾
Laurent's, bbls. .....lb. .45 - —
Linseed oil, dark, dms.....lb. .13¼- .13¾
light, dms.....lb. .14¼- .14¾
extra white, dist., dms...lb. .15 - .15½
Maleic, powd., dms.....lb. .30 - —
anhydride, dms., c.l. .....lb. .25 - —
dms., l.c.l. .....lb. .26 - —
Malic powd., kegs.....lb. .47 - —
Mandelic, bots. .....lb. 2.30 - —
dms., 1,000 lbs...lb. 1.90 - —
smaller lots .....lb. 2.15 - —
Mixed, tanks, nitric unit...lb. .05 - .06
sulphuric unit .....lb. .0085- .009
Molybdic, kgs., works.....lb. .95 - 1.10
Monochloroacetic, tech., bbls.lb. .15 - .18
Monosulphonic, bbls. .....lb. 1.50 - —
Muriatic, 18°, cbys., c.l., E. works..100 lbs. 1.50 - —
l.c.l., 25 and over, E. works..100 lbs. 1.75 - —
10 to 24, works..100 lbs. 1.85 - —
1 to 9, works....100 lbs. 2.45 - —
tanks, works.....100 lbs. 1.05 - —

Acid, muriatic, 20°, cbys., c.l., E. works..100 lbs. 1.75 - —
l.c.l. 25 and over, works, 100 lbs. 2.00 - —
10 to 24, works..100 lbs. 2.10 - —
1 to 9 works..100 lbs. 2.70 - —
tanks works .....100 lbs. 1.15 - —
22°, cbys., c.l., E. works.. 100 lbs. 2.25 - —
l.c.l., 25 and over, works, 100 lbs. 2.50 - —
10 to 24, works..100 lbs. 2.60 - —
1 to 9, works....100 lbs. 3.20 - —
tanks, works .....100 lbs. 1.65 - —
cryst., gran., bbls., car lots.lb. .21 - —
6-lb. bots.....lb. .18½- —
consumers, cbys.....lb. .08 - —
6-lb. bots.....lb. .20 - —
Myristic, dist., dms.....lb. .18¼- .18¾
Naphthenic, dom., acidity, 160, dms., c.l., works..lb. .11 Nom.
l.c.l., dms., works.....lb. .11½ Nom.
tanks, works.....lb. .10½ Nom.
200-220, dms., c.l., works..lb. .09½ Nom.
l.c.l., dms., works.....lb. .10 Nom.
tanks, works.....lb. .09 Nom.
240, dms., c.l., works.....lb. .14 Nom.
l.c.l., dms., works.....lb. .14½ Nom.
tanks, works.....lb. No prices
Nicotinic, 25-lb. cns.....lb.15.00 -15.50
5-lb. bots.....lb.16.50 - —
1-lb. bots.....lb.17.00 - —
Nitric, 36°, cbys., c.l., E. works, 100 lbs. 5.00 - —
l.c.l., 25 and over, E. works..100 lbs. 5.25 - —
10 to 24, works..100 lbs. 5.35 - —
1 to 9 works..100 lbs. 5.95 - —
38°, cbys., c.l., E. works.. 100 lbs. 5.50 - —
Western works...100 lbs. 5.75 - —
l.c.l., 25 and over, E. works..100 lbs. 5.75 - —
10 to 24, works..100 lbs. 5.85 - —
1 to 9, works..100 lbs. 6.45 - —
40°, cbys., c.l., E. works.. 100 lbs. 6.00 - —
l.c.l., 25 and over, E. works..100 lbs. 6.25 - —
10 to 24, works..100 lbs. 6.35 - —
1 to 9, works..100 lbs. 6.95 - —
42°, cbys., c.l., E. works.. 100 lbs. 6.50 - —
l.c.l., 25 and over, works, 100 lbs. 6.75 - —
10 to 24, works..100 lbs. 6.85 - —
1 to 9, works..100 lbs. 7.45 - —
C.P., USP., dealers, cbys...lb. .11½- —
7-lb. bots.....lb. .22¼- —
consumers, cbys.....lb. .13 - —
7-lb. bots.....lb. .24 - —
Oleum (see sulphuric fuming).
Oxalic, dom., bbls., c.l., works. lb. .10¾- —
10,000 lbs., and over....lb. .11 - —
smaller quantities.....lb. .12 - .14
Palm oil, white, dist., dms..lb. .08½- .08¾
tanks .....lb. .08 - —
Phenylacetic, bots.....lb. 1.75 - 3.00
Phosphoric, ortho, tech., 50%, cbys..lb. .06 - —
75%, cbys.....lb. .07½- —
USP, 85%, s. g. 1.710 cbys., 180 lbs..lb. .12 - —
50%, s. g., 1.347 cbys., 70 lbs..lb. .12 - —
djns., 25 lbs.....lb. .15 - —
10%, dilut., cbys., djns..lb. .07 - .07¼
Picramic, kgs.....lb. .65 - .70
Picric, bbls .....lb. .35 - —
Propionic ref., cbys., works..lb. .25 Nom.
dms., works.....lb. .22 Nom.
tech., cbys., works.....lb. .20 Nom.
dms., works.....lb. .16 Nom.
Pyrogallic, tech., lump, powd., bbls..lb. 1.05 Nom.
cns. .....lb. 1.10 Nom.
USP, cryst., cns.....lb. 1.45 Nom.
resubl., cns.....lb. 2.05 Nom.
Pyroligneous, bbls., dlvd. E. gal. .26 - —
Ricinoleic, com'l. split (see Acid, castor oil, split).
tech. dms., c.l., works....lb. .27 - —
l.c.l., dms., works.....lb. .28 - .33
Salicylic, tech., bbls.....lb. .33 - —
USP, bbls.....lb. .35 - .40
Sebacic, C.P., bbls., works..lb. No prices
tech., bbls., works.....lb. No prices
Soybean oil, dist., dms.....lb. .10 - .10½
Stearic, distil., double pressed, bgs., dlvd..lb. .12½- .13½
single pressed, bgs., dlvd.lb. .12 - .13½
triple pressed, bgs., dlvd..lb. .15¼- .16¼
saponif., double pressed, bgs., dlvd..lb. .12¾- .13¾
triple pressed, bgs., dlvd..lb. .15½- .16½
Succinic, bbls.....lb. .75 - —
Sulphanilic, CP, bots., works..lb. 1.60 - 1.68
tech., dms., works.....lb. .17 - —
Sulphonaphthenic, dms.....lb. .04 - .10
Sulphuric, 60°, cbys., c.l., E. works..100lbs. 1.25 - —
l.c.l., 25 and over, works, 100lbs. 1.50 - —
10 to 24, works..100 lbs. 1.60 - —
1 to 9, works..100 lbs. 2.20 - —
tanks, E. works.....ton.13.00 - —
66°, cbys., c.l., E. works..... 100 lbs. 1.50 - —
l.c.l., 25 and over, works.. 100 lbs. 1.75 - —
10 to 24, works..100 lbs. 1.85 - —
1 to 9, works..100 lbs. 2.45 - —
tanks, E. works.....ton.16.50 - —
98°, tanks, works.....ton.17.50 - —
C.P., USP, dealers, cbys...lb. .06½- —
9-lb. bots.....lb. .16½- —
consumers, cbys.....lb. .08 - —
9-lb. bots.....lb. .18 - —
fuming, 20%, tanks, E. works. ton.18.50 - —
65%, tanks, E. works....ton.36.00 - —
Tannic, tech., bbls., dms....lb. .40 Nom.
USP, fluffy, bbls., 1,000 lb. lots...lb. .88 Nom.
100-lb. lots.....lb. .90 Nom.
25-lb. lots.....lb. .93 Nom.
powd., bbls., 1,000 lbs....lb. .78 Nom.
smaller lots.....lb. .80 Nom.
Tartaric, USP, dom., cryst., gran., powd., bbls., 10,000 lbs. or more, one shipment, lb. .31¼- —
smaller quantities.....lb. .31¾- —
kgs .....lb. .32¼- —

Acacia—Alcohol, Isopropyl

Acid, Tobias, bbls.....lb. .55 - .60
Trichloroacetic, bots.....lb. 2.00 - 2.50
Tungsten, CP, kgs., wks....lb. No prices
Chem. grade, kgs., wks....lb. No prices
Aconite, leaves, bls.....lb. .28 - .40
Root, bls.....lb. .45 - .50
Aconitine, amorph., bots.....oz.23.00 - —
vis. .....gr. 1.00 - —
cryst., bots.....oz.42.00 - —
vis. .....gr. 1.60 - —
Adeps lanae, anhyd., dms.....lb. .30 - .31
hyd., dms.....lb. .29 - .30
Agar 1, bls.....lb. 1.50 Nom.
3, bls.....lb. No prices
Agaric, white, bls.....lb. No prices
Albumen, blood, dark, flake, bgs., f.o.b. Chicago, frt. alld..lb. .13 - —
pow'd, grade A, same basis, ton lots..lb. .15 - —
smaller lots, same basis..lb. .18 - —
light, dom., flake, dms., f.o.b Chicago, frt. alld..lb. .55 - .68
import, bgs.....lb. .60 Nom.
egg, ed., dom., cryst., bbls..lb. .64 - .66
dom., pwd., dms., bbls., lb. .69 - .71
import, cs.....lb. .68 Nom.
Alcohol, amyl (see also Fusel oil, refd.), ex pentane dms., c.l., frt. alld..lb. .111 - —
l.c.l., frt. alld.....lb. .121 - —
tanks, frt. alld.....lb. .101 - —
Benzyl, cans .....lb. .68 - —
drums .....lb. .63 - —
Butyl, normal, cns., works..lb. .13½- .15½
dms, c.l., frt. alld.....lb. .09 - —
l.c.l., frt. alld.....lb. .09½- —
tanks, frt. alld.....lb. .08 - —
tankwagon, frt. alld.....lb. .08½- —
secondary, dms., c.l., frt. pd., E. of Miss. R.....lb. .06½- —
l.c.l., same terms.....lb. .07 - —
tanks, same terms.....lb. .05½- —
tertiary, denaturing, dms., frt. alld..lb. .14 - —
Capryl, pure, dms., works...lb. 2.50 - —
tech., dms., works.....lb. .85 - —
Cetyl, dom., C.P., fiber ctns., 1,000 lbs..lb. 1.50 - —
500 lbs.....lb. 1.70 - —
100 lbs.....lb. 1.80 - —
25 lbs.....lb. 1.90 - —
5 lbs.....lb. 2.00 - —
com'l., dms.....lb. .95 - —
import, 85%, 100-lb. dms...lb. .55 - —
5 to 10 lbs.....lb. .75 - —
com'l., dms., 350 lbs.....lb. .45 - —
Cinnamic, bots.....lb. 2.00 - 2.00
Denatured, CD14, dms., c.l., works, E..gal. .31½- —
l.c.l., works, dms.....gal. .36½- —
tanks, E., works.....gal. .25½- —

Prices for territories other than E. of Rockies are 4c. per gal., in tanks, and 5c. per gal. in dms., higher. Tankcar sales require written authorization by Alcohol Tax Unit.

SDI, 190 pf., bbls., c.l., E. works..gal. .28½- —
19 bbls., E. works...gal. .30½- —
1 to 18 bbls., E. works, gal. .33½- —
dms., c.l., E. works....gal. .27½- —
19 dms., E. works...gal. .29½- —
gal. .32½- —
tanks, E. works.....gal. .21½- —

Anhydrous 3c. per gal higher.

SD-2B., dms., c.l., works, E. gal. .26½- —
19 dms., works, E...gal. .28½- —
1 to 18 dms., works, E. gal. .31½- —
tanks, E., works.....gal. .20½- —
SD23-G, works, E., dms..gal. .32 - —
19 dms.....gal. .34 - —
1 to 18 dms.....gal. .37 - —
tanks .....gal. .26 - —

Prices for territories other than E. of Rockies are 4c. per gal., in tanks, and 5c. per gal., in dms., higher.

Special solvent, dms., c.l., E. works..gal. .28½- —
20 dms., E. works...gal. .30½- —
gal. .33½- —
tanks, E. works.....gal. .22½- —

Tankcar sales require written authorization by Alcohol Tax Unit.

Diacetone, acetone-free, contract, dms., c.l., dlvd..lb. .09 - —
l.c.l., dlvd.....lb. .09½- —
cns., works.....lb. .13½- .15¼
tanks, dlvd.....lb. .08 - —
tech., contract, dms., c.l., dlvd..lb. .08½- —
l.c.l. dlvd.....lb. .09 - —
cns., works.....lb. .13 - .15
tanks, dlvd.....lb. .07½- —
Ethyl, 190 pf., ex molasses, bbls., c.l..gal. 4.55 - —
19 bbls. .....gal. 4.58½- —
1 to 18 bbls.....gal. 4.61½- —
dms., c.l. .....gal. 4.54 - —
19 dms. .....gal. 4.57½- —
1 to 18 dms.....gal. 4.60½- —
tanks .....gal. 4.48 - —
absolute, dms., c.l.....gal. 4.81½- —
19 dms. .....gal. 4.85 - —
1 to 18 dms.....gal. 4.88 - —

Grain alcohol 25c. gal higher.

Furfuryl, tech., cns., works..lb. .85 - —
dms., c.l., 33,000 lbs., works, lb. .90 - —
l.c.l., 500 lbs. and more, works..lb. .95 - —
Isoamyl, primary, dms., l.c.l., dlvd..lb. .27 - —
cans, works.....lb. .32 - —
Isobutyl, refd., dms., c.l., works, frt. alld. E. of Rockies..lb. .0680- —
l.c.l., same terms.....lb. .0730- —
tanks, same terms.....lb. .0680- —
Isopropyl, refd., 91%, dms., 5 gal., f.o.b. dest..gal. .65 - —
55 gal., c.l., same basis.gal. .33½- —
l.c.l., same basis....gal. .36½- —
tanks, frt., alld..... gal. .28½ —

Alcohol, Isopropyl—Amyl Salic.

Alcohol, isopropyl, 99%, dms., 5 gal., same basis..gal. .65 - —
55 gal. c.l. same basis, gal. .56 - —
l.c.l., same basis ....gal. .61 - —
tanks, same basis.....gal. .51 - —
Methyl (see Methanol).
Phenylethyl, bots., cns.....lb. 2.50 - 2.55
Propyl, normal, dms., works, gal. .70 - —
Tetrahydrofurfuryl, dms., contract, f.o.b. Waverly, N. Y., lb. .44 - —
450 lb. lots, same basis..lb. .50 - —
cns., f.o.b., Cedar Rapids, Ia. lb. .55 - —
Aldehol, denat, grade, dms., tanks, works..gal. .70 - .72
Aldehyde bisulphite, bbls., dlvd., lb. .17 - —
smaller containers .....lb. .20 - —
Aldol, 95%, 55 and 110 gal. dms., c.l., works..lb. .11 - —
l.c.l., works.....lb. .12 - —
5 and 10 gal. dms., works, lb. .15 - —
Aletris root, bgs.....lb. .39 - .40
Alizarin (see Red, alizarin).
Alkanet root, bgs.....lb. .22 - .23
Aloe, Barbados, true, cs.....lb. No prices.
Cape, cs.....lb. .25 - .29
Curacao, cs.....lb. .50 - .55
gourds, bbls.....lb. .80 - .85
Socotrine, kgs.....lb. .50 - .56
Aloin, 140-lb. bbls.....lb. 3.25 - —
100-lb. kgs.....lb. 3.37 - —
25-lb. fib. dms.....lb. 3.54 - —
Alphanaphthol, bbls.....lb. .52 - —
Alphanaphthylamine, bbls.....lb. .32 - —
Althea root, USP, cube cut, bbls., lb. .45 - .52
peeled, bls.....lb. .47 - .49
Alum, ammonia, burnt, USP, bbls., kgs..lb. .16 - .18
gran., bbls., works....100 lbs. 3.15 - —
dlvd. N.Y., Phila...100 lbs. 3.15 - —
lump, bbls., works....100 lbs. 3.40 - —
dlvd., N.Y., Phila..100 lbs. 3.40 - —
powd., bbls., works...100 lbs. 3.55 - —
dlvd. N. Y., Phila..100 lbs. 3.55 - —

Ammonia alum prices are for contract and open market; f.o.b. Phila.; frt. equalized with Marcus Hook, Boston, Atlanta, or Joliet; rail or water rates, whichever is lower. L.c.l. quantities must carry l.c.l. rate applying; for truck or ex warehouse deliveries all metrop. zones (except N. Y.) add l.c.l. rail or water rate, whichever is lower, from shipping or equalization point; dlvd. N. Y. prices apply to truck or ex warehouse.

Potash, gran., bbls., works, 100 lbs. 3.40 - —
dlvd N.Y., Phila..100 lbs. 3.40 - —
lump, bbls., works....100 lbs. 3.65 - —
dlvd. N.Y., Phila..100 lbs. 3.65 - —
powd., bbls., works....100 lbs. 3.80 - —
dlvd. N.Y., Phila..100 lbs. 3.80 - —

Potash alum: prices on same basis as those for ammonia alum.

Potash-chrome, bbls.....lb. .06¼ Nom.
Soda, bbls., c.l., works..100 lbs. 3.25 - —
l.c.l., dlvd. .....100 lbs. 4.25 - 5.00
Alumina acetate, 20%, normal solut., bbls., c.l., dlvd..lb. .07½- —
l.c.l., dlvd. .....lb. .09 - —
25%, basic solut., bbls., c.l., dlvd..lb. .10 - —
l.c.l., dlvd. .....lb. .12 - —
basic powd., bbls., dlvd....lb. .40 - —
smaller containers, dlvd. lb. .50 - —
Chloride, anhyd., com'l, dms., (extra), 45,000 lbs. and over, works..lb. .06 - —
12,000 to 40,000 lbs., works..lb. .07 - —
1,100 to 11,000 lbs., works. lb. .08 - —
140 to 875 lbs., works.lb. .09 - —
100 lbs. or less, works.lb. .10 - —
cryst. com'l, dms., c.l., works lb. .06 - —
l.c.l., dms., works.....lb. .06¼- —
solution, 32 deg., cbys., c.l., works..lb. .02¾- —
l.c.l., cbys., works.....lb. .03¼- —
Formate, 80% solut., bbls., c.l., dlvd..lb. .13 - —
l.c.l., dlvd. .....lb. .15 - —
Hydrate, heavy bbls., c.l., works..lb. .0290- —
l.c.l., bbls., works.....lb. .03¼- —
bgs., c.l., works.....lb. .0260- —
light, bgs., c.l., dlvd.....lb. .12 - —
l.c.l., bgs., dlvd.....lb. .12½- —
bbls., c.l., dlvd.....lb. .12½- —
l.c.l. bbls. dlvd.....lb. .13 - —
Oleate, dms., contro.....lb. .16¾- —
spec. grade .....lb. .17¼- .18½
Palmitate, precip., bbls.....lb. .24½- —
Resinate precip. dms., dlvd.lb. .15 -
Stearate precip., bbls., ctns., c.l..lb. .17½- —
l.c.l., ton.....lb. .18½- —
less than ton.....lb. .22½- —
Sulphate, com'l, bgs., c.l., works, frt. equald..100 lbs. 1.15 - —
l.c.l., works, frt. equald.. 100 lbs. 1.40 - —
bbls., c.l., works, frt. equald..100 lbs. 1.35 - —
l.c.l., works, frt. equaled 100 lbs. 1.60 - —
iron-free, bgs., c.l., works. 100 lbs. 1.45 - —
l.c.l., works....100 lbs. 1.70 - —
bbls., c.l., works...100 lbs. 1.65 - —
l.c.l., works.....100 lbs. 1.90 - —
Aluminum 98-99%, c.l.....lb. .20 - —
l.c.l. .....lb. .21 - —
paste, lining, extra fine, dms., 1,500 lbs..lb. .68 - —
ink, dms., 1,500 lbs.....lb. .73 - —
standard, dms., 1,500 lbs..lb. .40 - —
powder, lining, extra fine, dms., 1,500 lbs..lb. .92 - —
standard, dms., 1,500 lbs.lb. .57 - —
litho, extra brilliant, dms., 1,500 lbs..lb. .43 - —
extra fine, dms., 1,500 lbs.lb. .47 - —
lining, dms., 1,500 lbs....lb. .57 - —
standard, dms., 1,500 lbs..lb. .43 - —
rubber compound, dms., 1,500 lbs..lb. .40 - —
unpolished, dms., 1,500 lbs.lb. .57 - —
varnish, extra brilliant, dms., 1,500 lbs..lb. .43 - —
extra fine, dms., 1,500 lbs.lb. .47 - —
standard, dms., 1,500 lbs.lb. .40 - —

Aluminum paste and powder prices are 5c. per lb. higher for less than 200 lbs.; 2c. per lb. higher for 200-400 lbs.; and 1c. per lb. higher for 400-1,500 lbs.; for containers smaller than drums, prices are 1c. per lb. higher for 100 lbs.; 1½c. per lb. higher for 50 lbs.; 3c. per lb. higher for 10 lbs.; 5c. per lb. higher for 2 lbs.; 8c. per lb. higher for 1 lb.; and 12c. per lb. for ½ lb.; on single shipments of 5,000 lbs. prices are 1c. per lb. lower; for 30,000 lbs. prices are 2c. per lb. lower. Transportation allowed East of Mississippi.

Ambergris, gray, tins.....oz. 17.00 -26.00
Aminopyrine, fib., dms., 100 lbs. lb. 4.09 - —
bots., 5 lbs.....lb. 4.22 - 4.25

Ammonia, acetate, bbls., kgs., dlvd..lb. .27 - .33
dms., dlvd.....lb. .23 - .26
Aldehyde, dms.....lb. .65 - .70
Anhydrous, fertilizer, com'l, tanks (50,000 lbs.), works, lb. .04½- —
refrigeration, tanks, works.lb. .05 - —
pure, cyls., dlvd., met. N.Y.lb. .16 - —

Anhydrous ammonia in cylinders is quoted on a nationwide schedule of delivered and stock point prices in all States.

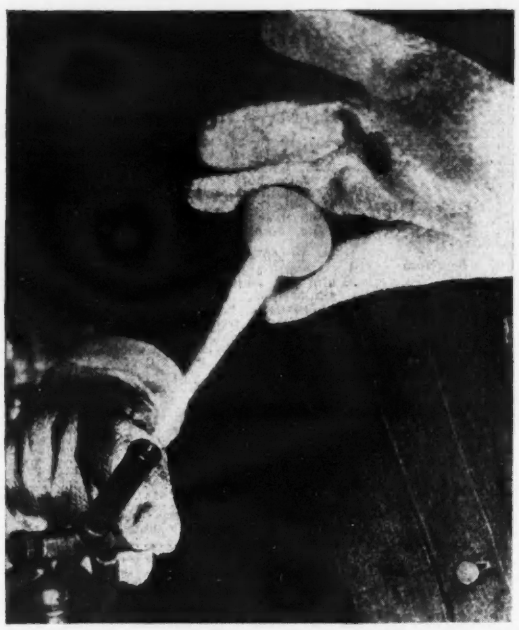
Aqua, 26°, cbys.....lb. .05¼- —
dms., c.l. .....lb. .02¼- —
l.c.l. .....lb. .02½- —
tanks (on NH_2 content), f.o.b. works.....lb. .04 - —
Benzoate, dms., 4,000 lbs. or more..lb .40 - .42
1,000 lbs. to 3,900 lbs....lb. .41 - .43
900 lbs. or less.....lb. .42 - .46
kgs., 4,000 lbs. or more....lb. .40 - —
1,000 lbs., to 3,900 lbs...lb. .41 - —
900 lbs. or less.....lb. .42 - —
Bicarbonate, bbls., dlvd., Met. N. Y..lb. .0556- —
kgs., same basis.....lb. .0606- —
Bichromate, bbls.....lb. .30 - .33
Bifluoride, bbls.....lb. .14½- .16½
Borate, bbls., kgs.....lb. .15 - .16
Bromide, gran., bbls.....lb. .35 - —
bxs. .....lb. .38 - .39
kgs. .....lb. .36 - —
Carbonate, lump, bbls., dlvd., Met. N. Y...lb. .08 - —
kgs., same basis.....lb. .11 - —
cns., same basis.....lb. .13½- —
Powdered, 1c. per lb. higher.
Chloride, tech. (see Ammoniac. sal).
USP, gran., 225-lb. bbls....lb. .12 - .13
100-lb. kgs.....lb. .15 - —

Ammonia, citrate, dms.....lb. .80 - —
cns. .....lb. .85 - —
Fluoride bbls
Hydroxide, (see Ammonia, aqua).
Hypophosphite, dms.....lb. 1.25 - 1.27
jars .....lb. 1.35 - —
Iodide, 5-lb. bots.....lb. 3.71 - —
jars .....lb. 3.65 - —
Linoleate, 80%, anhyd., bbls. lb. .11 - —
Molybdate, kgs., wks.....lb. 1.05 - 1.20
Nitrate, tech., bgs., works, 100 lbs. 4.35 - —
bbls., works.....100 lbs. 4.55 - —
Oleate, dms.....lb. .11 - —
Oxalate, neutral, powd., bbls., kgs..lb. .19 - .20
pure, gran.....lb. .32 - —
Perchlorate, kegs .....lb. .16 - .18
Persulphate, kgs.....lb. .21 - .22
Phosphate, dibasic, N.F.V., bls., lb. .37 - —
kgs. .....lb. .39 - —
tech., bbls., c.l.....lb. .07½- —
l.c.l. .....lb. .09 - .10
monobasic, crude (fert. grade), 11% N 48% phos- bulk, f.o.b. E. works.. unit-ton. 1.20 & .70
pure, bbls. .....lb. .40 - .45
tech., bbls., c.l.....lb. .07½- —
l.c.l. .....lb. .09 - .10
Salicylate, U.S.P., kgs.....lb. 1.15 - 1.30
Silicofluoride, imp., 350-lb. bbls., f.o.b. N.Y...lb. No price
5 bbls., same basis.....lb. No price
Stearate, anhydrous .....lb. .22 - —
paste .....lb. .06½- —
Sulphate, dom., bulk, c.l., f.o.b. Nov. shipt..ton. 27.50 - —

Ammonia sulphate prices are f.o.b. cars nearest Atlantic or Gulf port, and/or $1 per ton less than above prices f.o.b. cars nearest inland producing oven, whichever is lower to destination.

Ammonia, sulphide, liquid, 40-45%, basis, 100%, dms., c.l., dlvd..lb. .08 - —
l.c.l., works .....lb. .12 - .15
tanks, dlvd. .....lb. .07½- —
red, 48%, cbys., works.....lb. .07½- —
dms., works.....lb. .08½- —
yellow, 33%, cbys., works..lb. .07½- —
dms., works.....lb. .09½- —
Sulphocyanide, pure, 99-100%, kgs..lb. .55 Nom.
Ammoniac, gum (see Gum, ammoniac).
sal, gray, dom., bbls., c.l., 100 lbs. 5.50 - 5.75
l.c.l. .....100 lbs. 6.00 - 6.70
white, gran., dom., bbls., contracts, N. Y., l.c.l. 100 lbs. 4.90 - 5.05
import, csks. .....100 lbs. No prices
Amyl acetate, ex fusel oil, dms., c.l., dlvd..lb. .12½- —
l.c.l., dlvd.....lb. .13 - —
tanks, dlvd.....lb. .11½- —
cns., works.....lb. .17 - .18
ex pentane, dms., c.l., frt., alld..lb. .10½- —
l.c.l., frt., alld.....lb. .11½- —
tanks, frt., alld.....lb. .09½- —
Alcohol (see Alcohol amyl).
Butyrate, dms., 50 gal., returnable..lb. .75 - —
Caproate, cns.....lb. 2.75 - —
Chloride, normal, dms., works, lb. .56 - —
small lots, works.....lb. .68 - —
mixed, tech., dms., c.l., works..lb. .0565- —
l.c.l., works .....lb. .0665- —
tanks, works .....lb. .0465- —
Nitrate, bots.....lb. 1.80 - 1.85
Mercaptan, dms., l.c.l., works, lb. 1.10 - —
Oleate, dms., l.c.l., works..lbs. .25 - —
Salicylate, 5 lbs., bots., 25 dms., l.c.l., works..lb. .26 - —
cns., 25 lbs.....lb. .51 - —

LIFE on th



(*Above*) **AN EGG IN THE HAND** boils faster than one in the saucepan when the cook holds it in the flame of a blow-torch—first taking the precaution of putting on fire-resisting gloves. Made by American Optical Company, the gloves are designed for workers exposed to heat or the risk of fire. Modern protective clothing brings top-to-toe safety to the worker in the chemical industry—guarding him against heat, cold, moisture, dangerous fumes, and acids or other corrosive chemicals.

(*Above*) **MECHANIZING THE GREENHOUSE** is a new idea abroad, where tra economically carry out many operations. Greenhouses are progressing s ily toward increased yield, and all over the world both mechanized an mechanized ones recognize adequate insect and pest control as a vital lem. Cyanamid's CYANOGAS*G-FUMIGANT provides this control qu and inexpensively—average cost is less than one cent per 1,000 cubic

(*Below*) **VITAMINS TASTE BETTER** now that chemists have found wa eliminating the fishy taste formerly associated with Vitamins A ar Vi-Delta—product of Lederle Laboratories, Inc., Cyanamid subsidiar specially compounded to combine pleasant taste and high vitamin pot In emulsion form it tastes like orange syrup—yet it surpasses mini strength cod liver oil in Vitamins A and D potency.

(*Left*) **PLAYING WITH FIRE** is a favorite hobby of Mr. A. George Stern. has developed "cold fire"—a liquid that burns with a vivid yellow fl One of Mr. Stern's most spectacular demonstrations is to immerse bot hands in the liquid and then ignite it. Flames leap from his fingers wi causing the slightest injury. Striking—but safe—theatrical effects are as an outstanding possibility of cold fire.

Amyl, stearate, dms., l.c.l., works.
lb. .26 - —
Amylene, dms., c.l., works....lb. 1.02 - —
l.c.l., works.....lb. .11 - —
tanks, works.....lb. .09 - —
Anethol, bots. .....lb. 1.10 - 1.15
Angelica root, dom., bls.....lb. .23 - .24
import, natural, bls.....lb. .60 - .70
twisted, bls.....lb. .95 - 1.25
Angostura bark, bls.....lb. .28 - .32
Anilin oil, dms.....lb. .15 - —
c.l.....lb. .16 - —
tanks .....lb. .14½ - —
Salt, dms., works.....lb. .22 - .24
Anise, Mexican, bgs.....lb. .17½- .18
Spanish, bgs.....lb. .28 - .28½
Star, bgs.....lb. .18 - .19
Anisic aldehyde, bots.....lb. 3.00 - 3.10
Annatto paste, bxs.....lb. .34 - .39
seed, bgs.....lb. .06½- .07
Anthracene, 80-85%, bbls., wks., lb. .55 - —
90%, bbls., wks.....lb. .65 - —
Anthraquinone, 99.5%, subl., bbls., lb. .65 - —
Antimony butter (see Antimony chloride).
Chloride, solut., cbys.....lb. .17 -
Metal, spot.....lb. .14 Nom.
Needle, powd., kgs.....lb. .20 Nom.
Oxide, bgs., c.l.....lb. No price
l.c.l. .....lb. No price
Salts, 65%, kgs.....lb. .38 Nom.
White pigment, bgs., f.o.b. Laredo, Tex..lb. .15½ Nom.
Antipyrene, bbls., kgs., ton lots, lb. 2.00 - —
smaller lots.....lb. 2.10 - 2.15
Apomorphine, bots.....oz. 23.20 -23.70
Archil extract, con., bbls.....lb. No prices
double, bbls.....lb. No prices
triple, bbls.....lb. No prices
Areca nuts, powd., bbls.....lb. .13 - .18
Arecoline hydrobromide, bots..oz. 6.00 - 6.10
Argols, test 70% to 85%, basis 100%, 100 kgm., purity, 100 kilos. No prices

Arnica flowers, bls.....lb. .45 - .50
Root, bls.....lb. .49 - .51
Arrowroot, St. Vincent, powd. bgs..lb. .08 - .08½
bbls. .....lb. .08½- .09
Arsenic, metal, lump, cs.....lb. No prices.
Chloride (arsenous), cns.....lb. 4.85 -
Iodide (arsenous), 5-lb. bots.lb. 5.55 - —
jars .....lb. 5.43 - —
Red, import, cs.....lb. .18 Nom.
Trioxide (see Acid, arsenous).
White, powd., kgs., c.l.....lb. .03 - —
l.c.l. .....lb. .03½- —
Asafetida, cs. .....lb. .40 - .45
powd., bbls., bxs.....lb. .65 - .70
Asbestine (see Talc, N. Y. Sbroun).
Asbestos fiber, 5M, bgs., c.l. (20 tons), Canad. mines..ton.42.50 - —
5R, bgs., c.l. (20 tons), Canad. mines..ton.40.00 - —
6D, bgs., c.l. (20 tons), Canad. mines..ton.30.00 - —
7D, bgs., c.l. (20 tons), Canad. mines..ton.26.00 - —
7F, bgs., c.l. (20 tons), Canad. mines..ton.23.00 -
7M, bgs., c.l. (20 tons), Canad. mines..ton.19.00 - —
7K, bgs., c.l. (20 tons), Canad. mines..ton.16.50 - —
7M, bgs., c.l. (20 tons), Canad. mines ton 14.00
Asphaltum, Barbados, A, bgs., 20 tons, f.o.b. N. Y.....lb. .03¼- —
smaller lots, f.o.b. N. Y.lb. .03½- —
AA, bgs., 20 tons, f.o.b. N.Y., lb. .03½- —
smaller lots, f.o.b. N. Y..lb. .10½- —
California, dms., c.l., f.o.b. N. Y..ton.29.00 - —
l.c.l., f.o.b. N. Y.....ton.36.50 - —
Cuban A, bgs., c.l., f.o.b. N. Y. ton.60.00 - —
l.c.l., f.o.b. N. Y.....ton.90.00 - —
B, bgs., c.l., f.o.b. N. Y..ton.35.00 - —
l.c.l., f.o.b. N. Y.....ton.55.00 - —
Egyptian, bgs., c.l., f.o.b. N. Y..lb. .12 - —
l.c.l., f.o.b. N. Y.....lb. .15 - —

Asphaltum, gilsonite, brilliant black, bgs., c.l., Western shipt. points..ton.32.90 - —
seconds, bgs., c.l., Western shipt. points..ton.25.50 - —
selects, bgs., c.l., Western shipt. points..ton.30.50 - —
l.c.l., f.o.b., N. J. or N. Y., whse..ton.51.00 - —
Jet., bgs., c.l., Western shipping points..ton.30.50 - —
Manjak (see Asphaltum, Barbados).
Mexican, Texas, dms., c.l., refinery..ton.19.00 - —
l.c.l., refinery.....ton.21.00 - —
tanks, refinery.....ton.16.00 - —
Petroleum, cut-back, bbls., l.c.l., E. cst., refinery..gal. .18 - —
dms., c.l., E. cst., refinery, gal. .12 - —
tanks, Calif., refinery...ton.12.50 -14.00
East Coast, refinery...gal. .06 - .06½
Ill., Ind., refinery.....gal. .06½- —
N. Orleans refinery....gal. .06 - —
Atropine, bots. .....oz. 7.00 - —
Sulphate, bots.....oz. 4.00 - 4.25

B

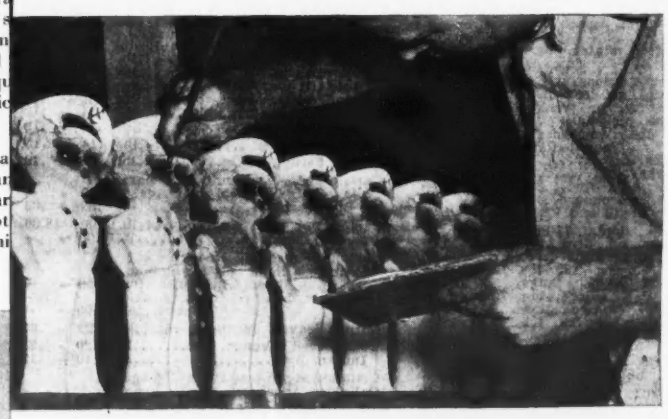
Balm of Gilead buds, bgs....lb. .45 - .50
Barberry bark, bgs.....lb. .37 - .39
Tree bark, bls.....lb. No prices
Barbital, cs.....lb. 3.25 - 3.62
Barium carbonate, natural, 90-96%, grd., bgs., c.l., works. ton.45.00 -47.00
99% thru 200 mesh, bgs., c.l., works..ton.47.00 -49.00
precip., bgs., c.l., works..ton.52.50 - —
Chicago .....ton.55.00 - —
l.c.l., works.....ton.57.50 - —
Chicago .....ton.60.00 - —

Amyl Stear.—Bismuth Subiodide

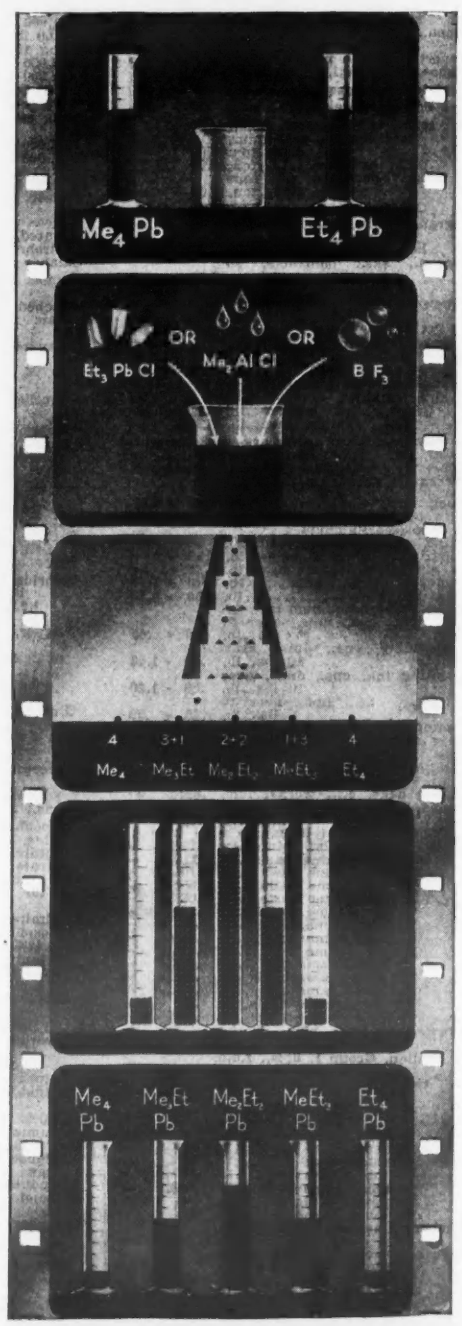
Barium carbonate, precip., bbls., c.l., works..ton.57.50 - —
Chicago .....ton.60.00 - —
l.c.l., works.....ton.62.50 - —
Chicago .....ton.65.00 - —
sulphur-free, bgs., c.l., works ton.57.50 - —
l.c.l., works.....ton.62.50 - —
Chlorate, kgs.....lb. .20 - .25
Chloride, C.P., cryst., bbls..lb. .25 - —
kgs. .....lb. .27 - —
tech., doms., cryst., bgs., c.l., Zone 1, dlvd., New England States, N. Y., N. J., Pa., Md., Va., Ohio, Mich., Ind., Wisc., Ill., Ky. and principal cities on west bank of Miss., north of Ark. line....ton.77.00 - —
bbls. same basis..ton.79.00 - —
l.c.l., bgs., same basis. ton.90.00 - —
bbls., same basis ton.93.00 - —
Zone 2, bgs., c.l., dlvd., Tenn., N.-S. Carolina, Ga., Ala., Miss., Fla. ton.81.00 - —
bbls., same basis..ton.88.00 - —
bbls., l.c.l., bgs., same basis..ton.94.00 - —
bbls., same basis..ton.96.00 - —
Zone 3, bgs., c.l., Minn., Ia., Mo., Col., N. Mex., Idaho, Utah, Ariz. ton.87.00 - —
bbls., same basis..ton.89.00 - —
l.c.l., bgs., same basis. ton.100.00 - —
bbls., same basis..ton.102.00 - —
Zone 4, bgs., c.l., dlvd., Wash., Ore., Calif., Nev..ton.83.00 - —
bbls., same basis..ton.85.00 - —
l.c.l., bgs., same basis.ton.96.00 - —
bbls., same basis..ton.98.00 - —
Dioxide, dms.....lb. .11 - .15
Fluoride, bbls. .....lb. .14 - .15
Fluosilicate, bbls. .....lb. .16 - —
Hydrate (see Hydroxide).
Hydroxide, bbls., imp.....lb. .06¼ Nom.
dom., works.....lb. .06½- .07
Iodide, bots.....lb. 4.77 - —
jars .....lb. 4.62 - —
Monoxide (see Oxide).
Nitrate, cks.....lb. .10½-Nom.
Oxide, dms.....lb. .09 - .11
Peroxide (see Dioxide).
Sulphate, tech. (see Barytes and blanc fixe).
X-ray, bbls.....lb. .09½- .10
kgs. .....lb. .12 - —
Barytes, dom., floated, bbls., c.l., St. Louis..ton.32.65 - —
l.c.l., ex whse., Boston, ton.36.00 - —
Chicago .....ton.31.15 - —
Cleveland .....ton.33.50 - —
New York.....ton.32.00 - —
St. Louis.....ton.22.85 - —
l.c.l., ex car, Baltimore, ton.30.70 - —
Boston .....ton.31.70 - —
Philadelphia .....ton.30.50 - —
ex whse., Baltimore.ton.32.10 - —
Boston .....ton.35.20 - —
Chicago .....ton.30.25 - —
Cleveland .....ton.33.00 - —
Detroit .....ton.35.00 - —
Kansas City .....ton.30.95 - —
Los Angeles .....ton 42.00 - —
New York.....ton.31.50 - —
Philadelphia .....ton.31.90 - —
San Francisco.....ton.42.00 - —
Toronto .....ton.29.50 - —
southern off color, bulk, mines. ton.12.00 - —
95.75%, bulk, mines....ton.16.00 - —
ore, bulk, mines.....ton. 7.00 - —
Cuban, crude, c.l., c.i.f.....ton.11.00 - —
German, grd., bbls., c.l., dock, t.a..ton. No price.
l.c.l., ex whse.....ton. No prices.
German, ungrd., bulk, c.l., ex dock..ton. No prices.
Italian, grd., bbls., c.l., ex dock, t.a..ton.29.50 Nom.
l.c.l., ex whse. .....ton.32.50 Nom.
Bauxite, bulk, mines.....ton. 7.00 -10.00
Bay leaves (see Laurel leaves)
Bay rum, import, bbls.....lb. .82 - .88
Bayberry bark, bgs.....lb. .15 - .16
Belladonna leaves, bls.....lb. .24 - .30
Root, bls.....lb. .40 - .55
Bentonite, 200 mesh, bgs., Wyo., works..ton.11.00 - —
325 mesh, bgs., Wyo., works, ton.16.00 - —
Benzaldehyde, tech., cbys., dms., lb. .55 - .60
USP, X, dms., 50 to 100 lbs..lb. .85 - —
5 to 25 lbs.....lb. .90 - .95
Benzene (see benzol).
Benzidin base, bbls.....lb. .70 - —
Benzol, 90%, nitration, pure, dms., works..gal. .21 - —
tankcars, frt. alld. E. of Omaha gal. .16 - —
W. Coast, f.o.b. Minnequa, Colo..gal. .16 - —
Benzoyl chloride, cbys.....lb. .23 - .30
Peroxide, pure, gran., fib. ctns., works..lb. 1.95 - —
Benzyl acetate, f.f.c., cns.....lb. .49 -
dms. .....lb. .44 - —
Alcohol (see Alcohol, benzyl).
Benzoate, a.m.a., f.f.c., cans. lb. .84 - —
dms. .....lb. .80 - —
Chloride, 95.97%, refd., dms., lb. .19 - .21
Cinnamate, cns.....lb. 4.15 - 5.50
Formate, cns.....lb. 2.75 - 3.50
Benzylidineacetone, bots.....lb. 2.00 - 2.50
Berberine bisulphate, cns.....lb. 17.25 -17.50
Hydrochloride, cns.....lb. 17.25 -17.50
Sulphate, cns.....lb. 17.25 -17.50
Berberis root, bls.....lb. .12 - .15
Betanaphthol, sublim., kgs.....lb. .80 - —
tech., bbls., c.l., works..lb. .26 - —
l.c.l., bbls., works.....lb. .24 - —
Benzoate, fib., dms.....lb. 2.10 - —
kgs. .....lb. 2.00 - —
Betanaphthylamine, tech., kgs.lb. .51 - —
Beth root, bls. .....lb. .19 - .21
Bismuth chloride, 5-lb. bots...lb. 3.20 - 3.25
Citrate, USP, VIII, 5-lb. bots., lb. 2.76 - —
jars .....lb. 2.65 - —
Hydroxide, 5-lb. bots.....lb. 3.46 - —
cns. .....lb. 3.35 - —
Metal, ton lots.....lb. 1.25 - —
Nitrate, cryst., 5-lb. bots...lb. 1.45 - —
cns. .....lb. 1.30 - —
Oxychloride, 5-lb. bots.....lb. 3.10 - —
cns., kgs.....lb. 3.10 - —
Subbenzoate, 5-lb. bots.....lb. 3.36 - —
fib. dms.....lb. 1.13 - —
Subcarbonate, bots., cns.....lb. 1.82 - 2.08
fib. dms.....lb. 1.73 - 1.76
X-ray, 5-lb. bots.....lb. 3.02 - —
fib. dms.....lb. 2.96 - —
Subgallate, bots., cns.....lb. 1.77 - 2.05
fib. dms.....lb. 1.68 - 1.71
Subiodide, cns.....lb. 4.01 - —
fib. dms.....lb. 3.96 - —

hemical Newsfront

KE A "CHEMICAL DICE GAME" is the rearrangement reaction between two pounds—with the law of probability accurately predicting the result. g the premise that like compounds will not react, Dr. George Calingaert, asoline's Director of Chemical Research, has shown that such a reaction brought about by a suitable catalyst. In the first photo, tetraethyllead tramethyllead—of the same class—are normally inert in the presence of her. Addition of a catalyst, as in the second photo, starts a random re- ment of ethyl and methyl groups. When marbles are dropped on pegs, as ird photo, the law of probability fixes the proportions in which they fall, r chance distribution corresponds to the final regrouping of the ethyl and radicals, as in the fourth photo. Besides the original compounds, three s are obtained, as in the fifth photo: trimethylethyllead, dimethyldiethyl- d methyltriethyllead. It is forecast that this discovery will open up new of research. The photos are from a movie presented by Dr. Calingaert ecent A. C. S. Convention in Boston.



CHRISTMAS TOYS are moving out onto store counters—and paint gives eir bright, cheery colors. Cyanamid supplies to the paint industry a com- ve variety of products, and carries on continuously productive research ndustry's problems. In addition, Cyanamid offers the cooperation of a specialists, to assist in the selection of materials for specific uses.



American Cyanamid & Chemical Corporation

30 ROCKEFELLER PLAZA, NEW YORK, N. Y.

*Registered U. S. Patent Office.

Bismuth Subnitrate—Cellulose

Bismuth, subnitrate, powd., bots., cns. ..lb. 1.57 - 1.83
fib. dms.....lb. 1.48 - 1.51
Subsalicylate, 62-66%, bxs...lb. 2.44 - —
bbls., fib. dms.....lb. 2.35 - —
Sulphocarbolate, 5-lb. bots...lb. 3.61 - —
fib. dms.....lb. 3.50 - —
Trioxide, powd., 5-lb. bots...lb. 3.56 - —
cns. .....lb. 3.45 - —
Bismuth-ammonia, citrate, USP, powd., 5-lb. bots..lb. 3.40 - —
cns. .....lb. 3.20 - —
Bismuth-betanaphthol, 5-lb. bots., lb. 3.14 - —
fib. dms.....lb. 3.03 - —
Black, acetylene, c.l., works, duty paid..lb. .14 - —
None. 1A. bbls., bxs. c.l., frt. alld. E..lb. .16 -
l.c.l., frt. alld. E.....lb. .16½ -
1. bbls., bxs., c.l., frt. alld. E..lb. .12 - —
l.c.l., frt. alld. E.....lb. .11½ - —
2. bbls., bgs., c.l., frt. alld., E..lb. .16½ - —
l.c.l., frt. alld. E.....lb. .11 - —
3, bbls., bgs., c.l., frt. alld. E. lb. .09½ - —
l.c.l. frt. alld. E.....lb. .10 - —
4, bbls., c.l., frt. alld. E..lb. .08¼ - —
l.c.l., frt. alld. E.....lb. .09 - —
5. bbls., bxs., c.l., frt. alld. E..lb. .07¼ - —
l.c.l., frt. alld. E.....lb. .08 - —
6, bbls., c.l., frt. alld. E..lb. .06½ - —
l.c.l., frt. alld. E.....lb. .07 - —
7, bbls., bgs., c.l., frt. alld E. lb. .09 - —
l.c.l. frt. alld. W.....lb. .06¼ - —
8, bbls., bgs., c.l., frt. alld. E, lb. .10 - —
l.c.l. frt. alld. E.....lb. .10½ -
Bone black prices on Pacific Coast are 1c. per lb. higher, ex dock or ex whse.
Carbon, special, 1, bgs., c.l., dlvd..lb. .03¾- .04¾
bgs., ctns., l.c.l., dlvd..lb. .06¾ —
cs., l.c.l., dlvd.....lb. .07½ —
2, bgs., c.l., works.....lb. .08½ —
l.c.l., dlvd.....lb. .10½ —
bgs., l.c.l., dlvd.....lb. .12 -
3, bgs., c.l., works.....lb. .13 -
l.c.l., dlvd.....lb. .14½ -
cs., l.c.l., dlvd.....lb. .16½ -
4, bgs., c.l., works.....lb. .29 -
cs., c.l., works.....lb. .29 -
l.c.l., dlvd.....lb. .32 -
5, bgs., cs., c.l., works...lb. .40 -
cs., c.l., dlvd.....lb. .44 -
6, cs., l.c.l., dlvd.....lb. .60 -
7, cs., l.c.l., dlvd.....lb. 1.10 -
standard, bgs., cs., dlvd., rail zone A (Gulf ports), for delivery in Nor. Amer. (water freights extra) .....lb. .02¾- —
B (Ark., Col., Kan., part of Mo., N. M., Tex., except coastal ports)..lb. .0310- —
50,000 lbs., dlvd., Zone C (Pac. Cst. States)..lb. .0319- —
30,000 lbs., dlvd., Zone C, (Pac. Cst. States)..lb. .0335- —
D (Ill., Ia., Wis.)...lb. .03¼- —
E (Fla., Ga., Ind., Ky., Mich., part of N. Y., Ohio, part of Pa., Tenn., W. Va.)....lb. .0341- —
F (Me., Md., Mass., N. H., N. J., part of N. Y., N. C., part of Pa., R. I., S. C., Vt., Va.)...lb. .03¾- —
G (Mexico), f.o.b. border..lb. .03 - —
f.o.b. N. Orleans.lb. .0290- —
l.c.l., f.o.b. whse.....lb. .05¾- —
bgs. or ctns. (seller's option), l.c.l., dlvd..lb. .06¼ - —
cs., l.c.l., dlvd.....lb. .07 - —
export, full compressed, cs., f.a.s., Gulf ports..lb. .04¾ Nom.
uncompressed, cs., f.a.s., Gulf ports..lb. .05¼ Nom.
Black, carbon, standard, bulk, tanks, same price as bags in each zone.
Charcoal (see C).
Graphite (see G).
Iron oxide, magnetic, 1, bbls., l.c.l., works..lb. .07¾- .08½
2, bbls., l.c.l., works....lb. .07 - —
pure, bbls., works.....lb. .08¾- —
Ivory, genuine, bbls.....lb. .30 - —
Lamp, dom., 1, ctns., c.l., works..lb. .07 - —
l.c.l., works.....lb. .08 - —
2, ctns., c.l., works.....lb. .09 - —
l.c.l., works.....lb. .10 - —
2A, ctns., c.l., works....lb. .11 - —
l.c.l., works.....lb. .12 - —
3, ctns., c.l., works.....lb. .13 - —
l.c.l., works.....lb. .14 - —
4, ctns., c.l., works.....lb. .14 - —
l.c.l., works.....lb. .15 - —
5, ctns., c.l., works.....lb. .17 - —
l.c.l., works.....lb. .18 - —
6, ctns., c.l., works.....lb. .24 - —
l.c.l., works.....lb. .25 - —
7, ctns., c.l., works.....lb. .34 - —
l.c.l., works.....lb. .35 - —
import, 1, bbls., c.l., f.o.b., N.Y..lb. .08 - —
l.c.l., f.o.b., N. Y.....lb. .09 - —
2, bbls., c.l., f.o.b. N. Y..lb. .11 - —
l.c.l., f.o.b. N. Y.....lb. .12 - —
3, bbls., c.l., f.o.b. N. Y..lb. .13 - —
l.c.l., f.o.b., N. Y.....lb. .14 - —
4, bbls., c.l., f.o.b. N. Y..lb. .14 - —
5, bbls, c.l., f.o.b. N. Y..lb. .19 - —
l.c.l., f.o.b. N. Y.....lb. .20 - —
6, bbls., c.l., f.o.b. N. Y..lb. .24 - —
l.c.l., f.o.b. N. Y.....lb. .25 - —
vine, A, bbls., works or N.Y. lb. .04¼ - —
B bbls, works or N. Y....lb. .05½ - —
Black dyes are listed under dyes.
Black Haw, root bark, bls....lb. .24 - .25
Tree bark, bls.....lb. .14 - .15
Black Indian hemp root, bls...lb. .18 - .20
Blanc fixe, dry, by-product, bgs., c.l...ton.60.00 - —
l.c.l. .....ton.65.00 - —
high grade precip., bgs., c.l., works, frt. equal.ton.75.00 - —
l.c.l., same basis....ton.80.00 - —
pulp 66⅔%, bulk, c.l., works, ton.40.00 -42.86
Bleaching powder, dms., c.l., works..100 lbs. 2.00 - 2.85
l.c.l., works.....100 lbs. 2.25 - 3.35
Blood, dried, dom., 16-16½ ammon., bgs., f.o.b. N. Y., unit-ton. 3.60 - —
high-grade, grd., 16-17 ammon., bulk, f.o.b. Chi., unit-ton. 3.60 - —
import, bgs., c.i.f. ports, shipt., unit-ton. 3.35 - —
soluble (see Albumen, blood)
Bloodroot, bls. .....lb. .11 - .12
Blue, alkali, toner, bbls., dlvd. N. of Tenn. and N. C., E. of Miss. river, including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis, lb. .90 - —
Alkali blue toner prices are ½c. higher dlvd Ala., Fla., Ga., La. (Shreveport, 1½c.), Miss., N. C., S. C., Tenn., Tex. (Dallas Ft. Worth, 1½c.; El Paso, 2c.), Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; ½c. higher dlvd. Pac. Coast; for Denver, Pueblo, Salt Lake City, Wichita, prices are equalized with Chicago.
Blue, bronze, bbls., same basis, alkali toner contracts..lb. .36 - —
open order.....lb. .37 - —
Celestial, bbls.....lb. .10 - .12
Chinese, bbls., same basis, alkali toner, contracts..lb. .36 - —
open order.....lb. .37 - —
Cobalt, genuine, 1-kilo pkg., lb. 4.00 - —
Imitation (see Blue, ultramarine, group 6).
Copper, phthalocyanin, bbls., f.o.b. works, frt. alld..lb. 3.50 - 3.75
Milori, bbls., same basis alkali toner, contracts..lb. .36 - —
open order.....lb. .37 - —
Potash, dom., bbls., same basis alkali toner, contracts..lb. .45 - —
open order.....lb. .46 - —
Prussian, bbls., same basis alkali toner, contracts..lb. .36 - —
open order.....lb. .37 - —
soluble, bbls., same basis alkali toner, contracts. lb. .36 - —
open order.....lb. .37 - —
Tungstated, peacock, kgs....lb. 3.75 - —
victoria, kgs.....lb. 3.25 - —
Ultramarine, dry or pulp, cobalt grades, bbls., works, frt. equal..lb. .22 - .27
jobbing grades, bbls., same basis..lb. .11 - —
regular grades, bbls., same basis..lb. .16 - .27
Ultramarine, blue, dlvd., ex whse., is 1c. higher; Pac. Coast ex whse., 2c. higher; 100-lb. kgs., 1c. above bbls.; 28-lb. boxes 5c. above bbls.
Victoria, ink toner, bbls., same basis alkali toner..lb. 1.85 - —
Blue dyes are listed under Dyes.
Blueflag root, bls. .....lb. .13 - .14
Blue mass, USP, cns.....lb. 1.47 - —
powd. cns.....lb. 1.49 - —
Blue vitriol, 99% , cryst., bbls., c.l., f.o.b., works...100 lbs. 4.75 - —
l.c.l., 16-50 bbls., same basis, 100 lbs. 4.90 - —
6-15 bbls., same basis, 100 lbs. 5.10 - —
1-5 bbls., same basis..... 100 lbs. 5.35 - —
monohydrated, dms., c.l., dealer, f.o.b. works...100 lbs. 9.35 - 9.60
l.c.l. dealer.....100 lbs.10.35 -10.60
Bluestone (see Blue vitriol)
Bone, raw, dom., 4½% ammon., 50% phos., bgs., f.o.b Chicago..ton.30.00 -32.00
import, bgs., c.i.f. ports.ton.31.00 - —
meal, steamed, dom., 3% ammon. 50% phos., bgs., f.o.b. Chicago..ton.30.00 - —
import, 100-lbs., bgs., c.i.f., ports, shipt..ton.28.50 - —
Phosphate, precip. (see Calcium phosphate dibasic, precip.)
Bones, steamed, dom., 1½% ammon., 60% phos. bgs., f.o.b., Chicago..ton.25.00 - —
import, 1% ammon., 65-70% phos., bgs., c.i.f. ports.ton. No prices.
Boneset leaves, bales.....lb. .08 - .09
Borage flowers, bales.....lb. .20 - .25
Borax, tech., 99½%, cryst., bbls., contracts, 80 tons min., dlvd..ton.58.00 - —
l.c.l., ex whse.....ton.67.00 -72.00
sks., contracts, 80 tons min., dlvd..ton.48.00 - —
l.c.l., ex whse.....ton.57.00 -62.00
gran., bbls., contracts, 80 tons min., dlvd..ton.58.00 - —
l.c.l., ex whse.....ton.64.00 -69.00
gran., sks., contracts, 80 tons min., dlvd..ton.43.00 - —
l.c.l., ex whse...ton.54.00 -59.00
powd., bbls., contracts, 80 tons min., dlvd..ton.58.00 - —
l.c.l., ex whse.....ton.69.00 -74.00
sks., contracts, 80 tons min. dlvd..ton.48.00 - —
l.c.l., ex whse.....ton.59.00 -64.00
USP, $15 per ton higher.
Bordeaux mixture, dms., c.l., dealers..lb. .11 - —
l.c.l., dealers, dms..lb. .11½ —
Bordeaux mixture prices are works or whse. basis, frt. alld. to dest. in lots of 96 lbs. and over; no trucking or freight allowances for works or warehouse pick-ups.
Borneol, bots. .....lb. 1.75 - 2.00
Brazilwood extract (see Hypernic).
Brimstone (see Sulphur).
Bromine, purif. cs., 1,000 lbs., frt. alld. E. of Rockies..lb. .30 - —
single pkg., same basis.lb. .35 - —
Bromoform, USP, bots.....lb. 1.40 - 1.60
Bromstyrol. bots.....lb. 2.50 - 2.75
Bronze powder, aluminum (see A).
Gold, litho, cns., 1ms., over 10 lbs..lb. .60 - .65
moulding, cns., dms., over 10 lbs..lb. .80 - 1.00
printing ink, cns., dms., over 10 lbs..lb. .85 - 1.20
radiator, cns., dms., over 10 lbs..lb. .45 - .50
Broomtop, bls.....lb. .16 - .18
Brown, iron oxide, pure precip., cks., f.o.b. N.Y., or works...lb. .10 - —
Metallic, iron oxide, bbls., works. lb. .02¼- —
paper bags, c.l., works....lb. .0210- —
Sienna, burnt, American bbls., works..lb. .08 - —
Italian, Group 1, bbls., f.o.b. N.Y. or Pa. points..lb. .12½- —
2, bbls., same basis..lb. .11½- —
3, bbls., same basis...lb. .10½- —
4, bbls., same basis...lb. .08¾- —
5, bbls., same basis...lb. .08¾- —
6, bbls., same basis...lb. .08½- —
7, bbls., same basis...lb. .08 - —
8, bbls., same basis...lb. .07¾- —
9, bbls., same basis...lb. .07½- —
10, bbls., same basis...lb. .06¾- —
11, bbls., same basis...lb. .06¾- —
12, bbls., same basis...lb. .06½- —
13, bbls., same basis...lb. .06 - —
14, bbls., same basis...lb. .05½- —
raw, American, bbls., works, lb. .02¾- —
Italian, Group 1, bbls., f.o.b. N.Y. or works..lb. .12½- —
Group 2, bbls., same basis, lb. .10¾- —
3, bbls., same basis...lb. .11 - —
4, bbls., same basis...lb. .09½- —
5, bbls., same basis...lb. .09 - —
6, bbls., same basis...lb. .08½- —
7, bbls., same basis...lb. .07¾- —
8, bbls., same basis...lb. .07½- —
9, bbls., same basis...lb. .06¾- —
10, bbls., same basis...lb. .06 - —
11, bbls., same basis...lb. .05 - —
Umber, American, bbls., works, lb. .02¾- —
Turkey, bbls., l.c.l., f.o.b. Bethlehem, Easton, Pa., N. Y.....lb. .04 - —
St. Louis.....lb. .04¾- —
ex car Los Angeles...lb. .04½- —
Brown, umber, Turkey, bbls., l.c.l., ex dock, Portland, San Francisco, Seattle..lb. .04¾- —
Boston .....lb. .04½- —
Chicago, Indianapolis, New Orleans.....lb. .04¾- —
Kansas City.....lb. .05 - —
Los Angeles, Portland, San Francisco, Seattle .....lb. .04¾- —
Minneapolis .....lb. .0485- —
Pittsburgh .....lb. .04¼- —
Vandyke, bbls., l.c.l.....lb. .05¾- —
Walnut crystals, bbls.....lb. .05½- .06
Brucine, 100 oz., cns.....oz. .15 - —
Sulphate, 100 oz.. cns.....oz. .12 - —
Bryonia root, bls.....lb. .17 - .18
Buchu leaves, bls.....lb. 1.00 Nom.
Buckthorn bark, true, bls.....lb. .12 - .15
cut and sifted, bbls.....lb. .16 - .18
Berries, bgs.....lb. .25 - .30
Burdock root, bls.....lb. .14 - .15
Burgundy pitch, dom., bbls...lb. .05½- .06
Butane, comi., 16-34°, tanks, group 3..gal. .02½- .03
Butternut bark, bls.....lb. .07 - .08
Butyl acetate, norm., cns., works..lb. .13½- .15½
dms., c.l., frt. alld.....lb. .09 - —
l.c.l., frt. alld.....lb. .09½- —
tanks, contract, frt. alld..lb. .08 - —
tankwagons, frt. alld.....lb. .08½- —
secondary, dms., c.l., frt. pd. E. of Miss. R..lb. .06½- —
l.c.l., same terms.....lb. .07 - —
tanks, same terms.....lb. .06½- —
Alcohol (see Alcohol):—
Aldehyde, dms., c.l., works..lb. .15½- —
l.c.l., works.....lb. .16½- .17½
tanks, works.....lb. .14½- —
Carbinol (see Carbinol).
Chloride, normal, dms., c.l., works..lb. .20 - —
l.c.l. .....lb. .23 - —
Crotonate, normal, 55 gal. dms., dlvd..lb. .35 - —
5 gal. cns.....lb. .75 - —
1 gal. cns.....lb. 1.00 - —
Ether (see under Ether).
Lactate, dms .....lb. .22½- —
Propionate, dms., dlvd.....lb. .16½- .17
tanks .....lb. .15½- —
Stearate, dms.....lb. .26 - —
Butyric ether, bots.....gal. 6.60 - 6.95
cns., works.....lb. .65 - .70
dms., frt. alld. Met. N. Y..lb. .60 - —

C

Cadmium, bromide, 25-lb. jars, 50 lbs. or more..lb. 1.56 - —
single jars.....lb. 1.61 - —
5-lb. bots.....lb. 1.75 - —
Iodide, 5-lb. bots.....lb. 4.19 - —
25-lb. cns.....lb. 4.05 - —
Lithopone (see Yellow).
Metal, pat. shapes, cs.....lb. .80 - —
ingots, or sticks.....lb. .75 - —
Red (see Red).
Selenide (see Red).
Sulphide (see Yellow).
Caffeine, 100-lb. ams., 10,000 lbs., or more..lb. 2.20 - —
2,000 lbs., or more.....lb. 2.25 - —
1,000 lbs., or more.....lb. 2.30 - —
100 lbs. .....lb. 2.35 - —
25-lb., 10,000 lbs., or more...lb. 2.23 - —
2,000 lbs., or more.....lb. 2.28 - —
1,000 lbs., or more.....lb. 2.33 - —
100 lbs.....lb. 2.43 - —
25 lbs.....lb. 2.55 - —
10-lb. cans, 10,000 lbs. or more, lb. 2.25 - —
2,000 lbs. or more.....lb. 2.30 - —
1,000 lbs. or more.....lb. 2.35 - —
100 lbs.....lb. 2.40 - —
less than 100 lbs.....lb. 2.75 - —
5-lb. cans, 25 lbs. or more lb. 2.70 - —
less than 25 lbs.....lb 2.85 - —
Citrated, cns.....lb. 1.80 - 2.10
Hydrobromine, bots.....lb. 4.91 - 4.99
Calabar beans, bgs.....lb. .27 - .28
Calamus root, peeled, N.F., cs. lb. .20 - .22
bleached, bls.....lb. .60 - .65
Calcium acetate, bgs., dlvd. 100 lbs. 1.90 - —
Arsenate, bgs., c.l., dealers, E. of Rockies..lb. .06¾- .07½
W. of Rockies, bgs., dms., lb. .06½- .06¾
Southern cotton states, bgs., dms..lb. .06½- .06¾
Calcium arsenate prices are works or whse. basis, frt. alld. to dest. in lots of 96 lbs. or over; no frt. or truck allowance for plant or whse. pick-up.
Bromide, 100 lbs., works, frt. equaled..lb. .70 - —
50 lbs., works.....lb. .72 - —
25 lbs., works.....lb. .75 - —
Carbide, dms., c.l., dlvd....lb. 4.75 - —
l.c.l., f.o.b. warehouse...lb. 4.85 - —
Carbonate (see Chalk and Whiting).
Chloride, flake, dom., 77-88%, bgs., dms., c.l., dlvd..ton.22.00 -35.00
l.c.l., 1 ton or over, dlvd., 100 lbs. 1.70 - 2.35
liquor, basis 40%, tanks, works..ton. 7.50 - —
solid, dom., 73-75%, bgs., dms., c.l., dlvd..ton.20.00 -23.00
l.c.l., 1 ton or over, dlvd., 100 lbs. 1.60 - 2.25
Gluconate, USP, gran., powd., bbls., 125 lbs..lb. .50 - —
dms. .....lb. .55 - .57
cns. .....lb. .68 - .85
Glycerophosphate, fib., dms., 1,000-lb. lots...lb. 1.10 - —
smaller lots.....lb. 1.25 - —
cns., 25 lbs.....lb. 1.50 - —
Hypophosphite, cns. .....lb. .62 - .67
Iodide, bots., jars.....lb. 4.04 - 4.19
Lactate, U.S.P., bbls., 200 lbs.lb. .23 - —
Nitrate, bgs., to fert. mfrs., ex vessel Atlantic or Gulf ports, for shipment during Oct.-Nov..ton.28.00 - —
Palmitate, bbls.....lb. .23½- .24½
Phosphate, dibasic, precip., 32-42% P_2O_5, bgs., c.i.f., Atlantic ports, shipt..unit-ton. No prices
tribasic, c.l., bbls., works..lb. .0635- —
l.c.l., bbls.....lb. .0705- —
Resinate, precip., bbls., 1 ton, lb. .13 - —
smaller lots .....lb. .14 - —
Stearate, precip., bbls., ctns., c.l..lb. .20½- —
l.c.l., 1 ton.....lb. .21½- —
Sulphate (see Gypsum).
Sulphide, 70%, CaS., bgs., c.l., wks..ton.46.00 - —
50% CaS, bgs., c.l., wks..ton.51.00 - —
luminous, dom., tins, works., 100 lbs..lb. 1.25 - —
Sulphocarbolate, bbls., 200 lbs..lb. .48 - —
kgs., 100 lbs.....lb. .50 - —
Calendula flowers, bls.....lb. .40 - .41
Calomel, bbls., fib., dms., kgs., 50 lbs. or more..lb. 2.57 - —
Camphor, natural, powd., cs...lb. .65 - .66
slabs, cs. .....lb. .65 - .66
tablets, tins .....lb. .70 - .71
synth., dom., tech., bbls., contract, 2,000 lbs. or more, works..lb. .35 - —
smaller lots, works....lb. .40 - —
Camphor, synth., dom., USP, or import., gran., powd., bbls., 2,000-lb. lots....lb. .50 Nom.
1,000-lb. lots.....lb. .51 Nom.
smaller lots.....lb. .52 Nom.
tablets, 2,000-lb. lots....lb. .63 Nom.
1,000-lb. lots.....lb. .64 Nom.
smaller lots.....lb. .65 Nom.
Monobromate, bxs., kgs.....lb. 1.75 - 1.80
Canada balsam (see Fir balsam).
Canary seed, Argentina, bgs...lb. .04 - .04½
Morocco, bgs.....lb. .04¼- .04¾
Turkish, bgs.....lb. .04 - .04½
Canella alba bark, bls.....lb. .29 - .30
Canella alba bark, bls.....lb. .45 - .50
Cantharides, Chinese, cs.....lb. .90 - .95
powd., bxs. .....lb. 1.10 - 1.15
Russian, cs. .....lb. 3.25 - 3.30
powd., bxs. .....lb. 3.75 - 3.80
Capsicum (see Pepper, red).
Caraway seed, Dutch, bgs.....lb. .16 - .16½
Carbazole, 95%, dms., ton lots, works..lb. .70 - —
smaller quantities, works..lb. .80 - —
98%, dms., ton lots, works..lb. .75 - —
smaller quantities, works..lb. .85 - —
Carbinol, butyl, norm., dms., works..lb. .60 - —
small lots, works.....lb. .75 - —
Diethyl, dms., works.....lb. .60 - —
small lots, works.....lb. .75 - —
Dimethylethyl, dms., works..lb. .60 - —
small lots, works.....lb. .75 - —
Isobutyl, 128-132°, dms., c.l., works..lb. .33 - —
l.c.l., works .....lb. .34 - —
tanks, works .....lb. .32 - —
Carbon bisulphide, 55-gal. dms., c.l., frt. all'd. E. of Miss. R., N. of Ohio R..lb. .05 - —
l.c.l. same basis.....lb. .05¾- —
5-gal. dms., c.l., same basis. lb. .07 - .07½
l.c.l., same basis.....lb. .08 - .08½
Dioxide, cyls.....gal. .06 - .08
Tetrachloride, Zone 1, 52½ gal. dms., c.l., frt. alld. gal. .66½- —
l.c.l., frt. alld.....gal. .73 - —
5 or 10 gal., dms., c.l., frt. alld..gal. .90 - —
l.c.l., frt. alld.....gal. 1.00 - —
Zone 2, 52½ gal. dms., c.l., frt. alld..gal. .73 - —
l.c.l., frt. alld.....gal. .80 - —
5 or 10 gal. dms., c.l., frt. alld..gal. .97 - —
l.c.l., frt. alld.....gal. 1.07 - —
Zone 3, 52½ gal. dms., c.l., frt. alld..gal. .87 - —
l.c.l., frt. alld.....gal. .98 - —
5 or 10 gal. dms., c.l., frt. alld..gal. 1.10 - —
l.c.l.,frt. alld.....gal. 1.20 - —
Zone 4, 52½ gal., dms., c.l.gal. .83 - —
l.c.l. .....gal. .90 - —
5 or 10 gal. dms., c.l. gal. 1.07 - —
l.c.l. .....gal. 1.17 - —
All prices on carbon tetrachloride are frt. alld. with the exception of Zone 4 in which case the prices indicated are based on f.o.b. cars, L. A., Cal., S. F., Cal., Portland, Ore., and Seattle, Wash. All packages are inclusive and not returnable. Zone 1, includes the following States:—Me., N. H., Vt., Mass., Ct., R. I., N. Y., N. J., Pa., Md., Del., Va., W. Va., N. C., Tenn., O., Ind., Mich., Ill., Wis., Minn., Ia., Mo., also the river towns of Burlington, Ia., and Kansas City, Kan. Zone 2, includes N. D., S. D., Neb., Kan., Okla., Ark., La., Miss., Ala., Ga., S. C. and Fla. Zone 3, includes that portion of Montana east of Billings and the states of Wyoming, Colo., N. M., and Texas. Zone 4, includes Wash., Idaho, Montana, Ore., Cal., Nev., Utah and Arizona.
Cardamom, bleached, cs.....lb. 1.55 - 2.00
decorticated, cs. .....lb. 1.00 - 1.05
green, bgs. .....lb. .80 - .81
Carob bean flour (see Gum, Locust bean).
Carvol, bots.....lb. 4.00 - 4.25
Cascara sagrada bark, bulk...lb. .12 - .18
Case-hardening mixture, 30%, lump, dms., l.c.l..lb. .09 - —
Casein, dom., 20-30 mesh, bgs., c.l., dlvd..lb. .20 - —
5 tons, works.....lb. .21½- —
smaller lots, works.....lb. .23 - —
80-100 mesh, bgs.....lb. .20 - —
5 tons, works.....lb. .21½- —
smaller lots, works.....lb. .23 - —
import, Argent., 20-30 mesh, bgs., c.l., duty paid..lb. .15 - —
80-100 mesh, bgs., c.l. duty paid..lb. .15½- —
French, 30 mesh, bgs., c.l., duty paid..lb. .14 Nom.
Cassia, Batavia, 1, bgs.....lb. .18 - .19
shortstick, bls.....lb. .14¼- .14¾
broken bls.....lb. .13½- .14
China, rolls, select, bls.....lb. .10½- .11
broken, extra, bls.....lb. .11 - .11½
Saigon, bls. .....lb. .16½- .18
Cassia buds, cs.....lb. .14 - .15
Cassia fistula, baks.....lb. .18 - .19
Castile soap, Italian, white, bars, 40 lb. cases..case.14.00 - —
powd, bbls.....lb. .33 - .36
Castoreum, nat., cns.....lb.15.00 -18.00
synth., bots.....lb.19.00 - —
Castor oil (see Oil, castor).
Pomace, dom., 6½%, ammon., bgs., c.l., works..ton.17.50 - —
import, bgs., c.i.f., ports, shipment..ton.20.00 - —
Catnep leaves, Southern, bls...lb. .22 - .28
Celery seed, French, bgs.....lb. .20 - .21
Indian, bgs.....lb. .16½- .17
Celluloid scrap (see Pyroxylin scrap).
Cellulose, acetate, flake gran., cs., 5,000 lbs. and over, frt. alld..lb. .35 - —
100 to 4,950 lbs., same basis..lb. .36 - —
less than 100 lbs., works, lb. .37 - —
Acetate-butyrate, high (20-40% butyryl content), 100-lb. ctn., 5,000 lbs. and up, frt. alld. lb. .45 - —
1,000-4,900 lbs., frt. alld.lb. .46 - —
100-900 lbs., frt. alld....lb. .47 - —
smaller pkg., works.....lb. .48 - —
low (up to 9.9%), 100-lb. ctn., 5,000 lbs. and up, frt. alld..lb. .41 - —
1,000-4,900 lbs., frt. alld.lb. .42 - —
100-900 lbs., frt. alld....lb. .43 - —
smaller pkg., works.....lb. .44 - —
medium (10-19.9%), 100-lb. ctn., 5,000 lbs. and up, frt. alld.....lb. .43 - —
1,000-4,900 lbs., frt. alld.lb. .44 - —
100-900 lbs., frt. alld....lb. .45 - —
smaller pkg., works.....lb. .46 - —
Acetate-propionate, high (20-40% propionyl content), 100-lb. ctn., 5,000 lbs. and up, frt. alld.....lb. .45 - —
1,000-4,900 lbs., frt. alld.lb. .46 - —
100-900 lbs., frt. alld....lb. .47 - —
smaller pkg., works.....lb. .48 - —
low (up to 9.9%), 100-lb. ctn., 5,000 lbs. and up, frt. alld.lb. .41 - —
1,000-4,900 lbs., frt. alld.lb. .42 - —
100-900 lbs., frt. alld....lb. .43 - —
smaller pkg., works.....lb. .44 - —
medium (10-19.9%), 100-lb. ctn., 5,000 lbs. and up, frt. alld..lb. .43 - —
1,000-4,900 lbs., frt. alld.lb. .44 - —
100-900 lbs., frt. alld....lb. .45 - —

Cellulose, acetate-propionate, medium, (10-19.9%), 100 lb. ctn., smaller pkg., works.....lb. .46 - —
Triacetate, flake, cs., 5,000 lbs. and over, frt. alld...lb. .35 - —
100 to 4,950 lbs., same basis..lb. .36 - —
less than 100 lbs., works, lb. .37 - —
Cerium hydrate, dms., works..lb. .60 - —
Oxalate, USP, bbls., works..lb. .35 - —
kgs., works.....lb. .37 - —
Chalk, precip., extra light, light, heavy, bgs., 50 lbs., c.l., f.o.b., works..lb. .02¾- —
cks., 250 lbs., c.l., f.o.b., works..lb. .03¼- —
Chamomile flowers, Hungarian, genuine, cs..lb. .50 - .60
Roman, bls.....lb. .40 - .45
Charcoal, softwood, gran., bgs., c.l., dlvd., Ala., Del., Ga., Ky., Md., Miss., N. J., N. Y., N. C., S. C., Tenn., Va., W. Va..ton.32.40 - —
Colo. .....ton.29.00 - —
Conn., Me., Mass., N. H., R. I., Vt....ton.32.80 - —
Ill. (except river point), Minn., Neb., Wis., ton.27.00 - —
Indiana .....ton.28.00 - —
Mo., Okla., Tex. (except El Paso)...ton.25.00 - —
Kansas, El Paso, Tex., ton.26.00 - —
Michigan .....ton.29.80 - —
Ohio .....ton.29.80 - —
Penn. .....ton.31.80 - —
Utah .....ton.66.00 - —
Willow, powd., bbls.....lb. .06 - .07
Chestnut extract, clarif., 25% tan., bbls., c.l., wks..lb. .02¼- —
l.c.l., bbls., wks.....lb. .02¾- —
tanks, wks.....lb. .01¾- —
Chillies (see Pepper, red).
China clay, dom., dry-grd., air-float, 99.75%, 300 mesh, bgs., c.l., works..ton. 9.50 - —
l.c.l., works.....ton.10.00 -16.00
bulk, c.l., works...ton. 7.60 - —
200 mesh, bgs., c.l., works..ton. 8.50 - —
l.c.l., works.....ton. 9.50 -15.50
wet-grd., silk-bolt, 99.9%, 325 mesh, bulk, c.l., works..ton. 9.50 - —
paper bgs., c.l., works, ton.12.50 - —
import, white, lump, bulk, c.l., ex dock, Balto., Boston, Norfolk, Phila..ton.26.00 Nom.
powd., csks., l.c.l., ex dock, ton.39.00 Nom.
ex whse.....ton.42.00 Nom.
Chloral hydrate, bots., 1,000 lbs., lb. .93 - 1.02
500 lbs.....lb. .96 - 1.05
100 lbs.....lb. .98 - 1.07
25 lbs.....lb. 1.00 - 1.09
1-10 lbs.....lb. 1.05 - 1.12
dms., 1,000 lbs.....lb. .90 - —
500 lbs.....lb. .93 - —
100 lbs.....lb. .95 - —
Chlorinated rubber, 5 cps., bgs., c.l., works..lb. .40 - —
ton lots, works.....lb. .42 - —
smaller lots, works.....lb. .45 - .50
10-1,000 cps., bgs., c.l., works, lb. .35 - —
ton lots, works.....lb. .37 - —
smaller lots, works.....lb. .40 - .45
Chlorine, liq., cyls., c.l., dlvd., N. Y..lb. .05¼- —
contracts, dlvd., N. Y..lb. .06¼- —
l.c.l., dlvd., N.Y.....lb. .07¼- —
tanks, single unit, works, frt. equald..100 lbs. 1.75 - —
multiple unit, 3 or over, wks., frt. equald., 100 lbs. 1.90 - —
2. works, frt. equald., 100 lbs. 2.15 - —
1. works, frt. equald., 100 lbs. 2.60 - —
Chloracetophenone, tins, works..lb. 3.00 - 3.50
Chloroform, tech., 650-lb. dms.lb. .20 - —
100-lb. dms.....lb. .22 - —
50-lb. dms.....lb. .23 - —
USP, 650-lb. dms.....lb. .30 - —
100-lb. dms.....lb. .32 - —
50-lb. dms.....lb. .33 - —
Chloropicrin, comi, 180-lb. cyls., works..lb. .80 - —
100 lb. cyls., works.....lb. .85 - —
5-25 lb. cyls., works.....lb. 1.00 - 1.15
Chrome acetate, powd., 24%, bbls., dlvd..lb. .13½- —
solut., 8¼% cs., bbls.....lb. .05¾- —
Cake, bulk, c.l., works.....ton.15.00 -16.00
Green (see Green, chrome).
Oxide (see Green, chrome).
Sulphate, pearls, dms..100 lbs., lb. .40 - —
powd., dms., 100 lbs.....lb. .45 - —
scales, dms., 100 lbs.....lb. .45 - —
Trioxide (see Acid, chromic).
Yellow (see Yellow, chrome).
Chrysarobin, 5-lb. bot.....lb. 5.00 - —
Cinchona bark, quill, USP., 10 in., medium, cs..lb. .70 - .75
20 in., thick, cs.....lb. .70 - .75
20 in., medium, cs.....lb. .30 - .35
USP, broken quill, red, bgs., lb. .30 - .35
yellow, bgs.....lb. .30 - .35
Cinchonidine, crys., small cns., 100 ozs..oz. .83 - —
large, cns.....100 ozs..oz. .87 - —
powd., cans.....100 ozs..oz. .80 - —
Sulphate, N.F., cns.100 ozs..oz. .47 - —

Cinchonidine buyers must pay a surcharge of 4c. per oz., to cover present war risk insurance, higher ocean freight rates, and additional expenses over the cost of usual business. Changes in these controlling factors will be reflected in the surcharge invoiced.

Cinchonine, crys., small, cns., 100 ozs..oz. .54 - —
large, cns.....100 ozs..oz. .58 - —
powd., cns.....100 ozs..oz. .50 - —
Sulphate, N.F., cns.100 ozs..oz. .34 - —

Cinchonine buyers must pay a surcharge of 4c. per oz., to cover present war risk insurance, higher ocean freight rates and other expenses over the cost of usual business. Changes in these controlling factors will be reflected in the surcharge invoiced.

Cinchophen, USP, boxes, 5 lbs., lb. 3.90 - —
bots., 1 lb.....lb. 3.42 - —
dms., 100 lbs.....lb. 3.15 - —
Cinnamic alcohol (see Alcohol cinnamic).
Aldehyde, f.c.c., cbys.....lb. .85 - .90
Cinnamon, Ceylon, 2 bls.....lb. .22½- .23
3 bls. .....lb. .21½- .22
Citral, bots., cns.....lb. 1.40 - 3.10
Citrine ointment, jars, tubes..lb. .87 - —
Citronellal, bots., dms.....lb. .75 - .80
Citronellol, bots., dms.....lb. 1.60 - 1.85
Clove, Madagascar, bls.....lb. .20 - .21
Zanzibar, bls. .....lb. .20 - .21
Clover tops, bgs.....lb. .35 - .38
Coaltar, coal-gas, crude, bbls., c.l., works..bbl. 7.50 - 7.75
l.c.l., works.....bbl. 8.25 - 8.50
tanks, works.....gal. .07½- .09
refd., bbls., c.l., works...bbl. 8.00 - 8.25
l.c.l., works.....bbl. 8.75 - 9.00
tanks, works.....gal. .08½- .10
Coaltar, water-gas, crude, dms., c.l., works..dm. 7.50 - —
l.c.l., works.....dm. 8.25 - —
refd., dms., c.l., works....dm. 8.00 - —
l.c.l., works.....dm. 8.75 - —
Cobalt acetate, bbls., kgs., dlvd., lb. .65 - .67
Carbonate, pwd., bgs., wks., lb. 1.25 - 1.60
Chloride, kgs., wks.....lb. .76 - 1.20
Hydrate, bbls.....lb. 1.78 - —
Linoleate, paste, 6%, dms....lb. .31 - —
solid, 8½%, bbls.....lb. .33 - —
Oleate, bbls.....lb. .25 Nom.
Oxide, black, kgs.....lb. 1.84 - —
Resinate, fused A, bbls.....lb. .13½- —
l½, bbls.....lb. .15 - —
2%, bbls.....lb. .14 - —
3½%, bbls.....lb. .17½- —
precip., dms., dlvd.....lb. .84 - —
Sulphate, dms.....lb. .65 - —
Cocaine, hydrochloride, 100 ozs., cns..oz. 9.75 - —
Cochineal, gray, bgs.....lb. .35 - .38
Teneriffe, silver, bgs.....lb. .36 - .39
Cocoa butter, bulk, c.l., bgs...lb. .14 - .14½
Cocillana bark, bgs.....lb. .40 - .48
Codeine, cns., 100 ozs.....oz.11.70 - —
Hydrochloride, cns., 100 ozs..oz.10.50 - —
Phosphate, cns., 100 ozs.....oz. 9.00 - —
Sulphate, cns., 100 ozs.....oz. 9.50 - —
Codliver oil (see Oil, codliver).
Cohosh, black, root, bls.....lb. .06½- .07
Blue, root, bls.....lb. .06 - .07
Colchicine, bots., 4 ozs.....oz.18.00 - —
single, ozs. .....oz.19.00 - —
Colchicum seed, bgs.....lb. .36 - .40
Collodion, USP, dms., 325 lbs..lb. .12½- —
cns., 25 lbs.....lb. .16 - —
Flexible, USP, dms., 325 lbs.lb. .14½- —
cns., 25 lbs.....lb. .18 - —
Colocynth pulp, bls.....lb. .75 - .80
Colombo root, bls.....lb. .18 - .20
Coltsfoot leaves, bgs.....lb. .15 - .16
Condurango bark, bgs.....lb. .14 - .16
Conium leaves, bls.....lb. .30 - .32
Copaiba balsam, Para, cns....lb. .35 - .36
S. A. USP, cns.....lb. .37 - .39
Copper acetate, normal, bbls., dlvd..lb. .22 - —
smaller containers, dlvd..lb. .24 - —
Carbonate, 52-54%, bbls.....lb. .1690 Nom.
Chloride, cryst., bbls.....lb. .18 Nom.
Cyanide, tech., bbls.....lb. .34 Nom.
Iodide, bots. .....lb. 5.15 - 5.19
Metal, electrolytic.....lb. .12½- —
Nitrate, cryst., bbls.....lb. .17 Nom.
Oleate, precip., bbls.....lb. .20 - —
Oxide, black, 79-80% bbls., tons, works..lb. .18¾ Nom.
Red, com'l., 80-88%, kgs., f.o.b. N. Y..lb. .20 Nom.
Resinate, precip., bbls.....lb. .15 - .16
Stearate, precip., bbls.....lb. .24½- .25½
Sulphate (see Blue vitriol).
Copperas, cryst., gran., bgs., c.l., works..ton.17.00 - —
bbls., c.l., works.....ton.19.00 - —
l.c.l., 25 or over, works, 100 lbs. 1.45 - —
5-24, works.....100 lbs. 1.55 - —
1-4, works.....100 lbs. 2.00 - —
bulk, c.l., works.....ton.14.00 - —
Copra, Coast, shipt.....lb. .0225 Nom.
Coriander seed, Morocco, bgs..lb. .07¼- .07½
bleached, bgs. .....lb. .10 - .10½
Corn sugar, Tanner's chipped, bgs., c.l., dlvd..100 lbs. 2.94 - —
slabs, bbls., c.l.....100 lbs. 2.86 - —
solid, bbls., c.l.....100 lbs. 2.98 - —
Syrup, 42°, bbls., c.l....100 lbs. 2.97 - —
43°, bbls., c.l.....100 lbs. 3.02 - —
Cornsilk, bls. .....lb. .14 - .15
Corrosive sublimate, cryst., dms., 50 lbs. or more..lb. 2.14 - —
gran., powd., dms., 50 lbs. or more..lb. 1.99 - —
Cottonroot bark, bls.....lb. .11 - .12
Cottonseed hull ash, 32-36% pot-ash, bgs., dlvd., unit-ton. 1.10 - —
Coumarin, 5 lbs., or more, 25-lb. cns..lb. 3.75 - 3.90
5-lb. cns.....lb. 2.85 - 3.10
1-lb. cns.....lb. 3.00 - 3.25
1-oz. cns.....lb. 3.35 - 3.60
less than 5 lbs., cns.....lb. 4.15 - 4.65
Cramp, bark, genuine, bls.....lb. .23 - .24
so-called, bls. .....lb. .06 - .07
Cranesbill root, bls.....lb. .13½- .14
Cream tartar, gran. or powd., bbls., 5,000 lbs., one shipm't, lb. .23¼- —
smaller lots, bbls.....lb. .25¾- —
kgs. .....lb. .26¼- —
Creosote, beechwood, bots.....lb. .70 - .75
Hardwood, USP, bots.....lb. .45 - .47
Pine, dms.....gal. .28 - —
Carbonate, bots., cbys.....lb. 1.40 - 1.75
Oil, crude, tanks, works....gal. .13¼- .14¼
Coaltar, solution, tanks, works, gal. .122 - .133
refd., bbls., l.c.l., works..gal. .25 - —
tanks, works .....gal. .18 - 18¼
Cresol, USP, dms., c.l., works.lb. .09½ Nom.
l.c.l., same basis.....lb. .10 Nom.
special resin grade, dms., c.l., works..lb. .06¼ Nom.
l.c.l., same basis.....lb. .08¾ Nom.
Crotonaldehyde, 97%, 55 and 110 gal. c.l., works..lb. .11 - —
l.c.l., works.....lb. .12 - —
5 and 10 gal. dms., works..lb. .15 - —

Cellulose—Crotonaldehyde

"Knowledge dwells in heads replete with thoughts of other men"

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Cube Root—Gambier

Cube root, powd., 5% rotenone, bbls., f.o.b. N.Y.C., frt. equaled, with shipments from Newark and Balto. Prices for Pacific Coast are plus frt., 10,000 lbs. or more..lb. .24 - .25
2,000 lbs. to 10,000 lbs..lb. .25 - .26
1,000 lbs. to 2,000 lbs..lb. .26 - .27
200 lbs. to 1,000 lbs.....lb. .27 - .28
4% rotenone prices are 4c. per lb. less.

Cube, powd., contracts have no protection against decline in price. Part deliveries against contract are billed at price for smaller quantities, subject to adjustment when contract quantity is reached.

Cubeb berries, XX, bgs.....lb. .42 - .44
powd., cs. .....lb. .47 - .48
Culver's root, bls.....lb. .15 - .16
Cumin seed, Algerian, bgs....lb. .18½- .19
Morocco, bgs.....lb. .20 - .20½
Cutch, Borneo, extract, solid, f.a.s., bgs..lb. .04 - —
Cyanamide, 22%, N_2, pulv., bgs., dlvd., contracts, N_2, unit ton. 1.27½- —
Cyanide-chloride, mixture, 45%, gran., dms..lb. .10¾- —
lump, dms.....lb. .09¾- —
75%, gran., dms.....lb. .15 - —
Cyclohexane, 98-100%, dms., works, frt. alld., E. of Rockies..lb. .25 - —
Cyclohexanol, 98-100%, dms., works, frt. alld., E. of Rockies..lb. .30 - —
Cyclohexanone, 98-100%, dms., works, frt. alld., E. of Rockies..lb. .58 - —

D

Damiana leaves, bls.....lb. .20 - .21
Dandelion root, German, bls...lb. .27 - .28
Deertongue leaves, bls.....lb. .10 - .11
Degras, common, dom., bbls...lb. .09½- .10
English, bbls.....lb. .10 Nom.
neutral, dom., bbls.....lb. .15 - .18
English, bbls.....lb. .15 — .18
Derris root, powd., 5% rotenone, bbls., f.o.b. N.Y.C., frt. equal'd., with shipments from Newark and Balto. Prices for Pacific Coast are plus frt., 10,000 lbs., or more..lb. .24 - .28
2,000 lbs., to 10,000 lbs..lb. .26 - .30
1,000 lbs. to 2,000 lbs. lb. .28 - .32
200 lbs. to 1,000 lbs..lb. .30 - .34
4% rotenone prices are 6c. per lb. less.

Derris root, powd., contracts give no protection against decline in price. Part deliveries against contract are billed at price for such smaller quantities, subject to adjustment when contract quantity is reached.

Derris, extract, 25% rotenone, bulk, cns..lb. 4.00 - 5.00
15% rotenone, bulk cns....lb. 2.25 - 3.25
Devil's club, root bark.....lb. 1.50 - —
Dextrin, British gum, c.l., f.o.b., Chicago..100 lbs. 3.60 - —
l.c.l., f.o.b. Chicago..100 lbs. 3.70 - —
Corn, canary, bgs., c.l., f.o.b. Chicago..100 lbs. 3.55 - —
l.c.l., f.o.b. Chicago..100 lbs. 3.45 - —
white, bgs., c.l., f.o.b. Chicago..100 lbs. 3.30 - —
l.c.l., f.o.b. Chicago..100 lbs. 3.50 - —
Potato, import, bgs.....lb. .07⅝ Nom.
Diacetone (see under Alcohol).
Diacetyl, bots.....lb. 10.00 -11.00
Diamyl ether, dms., c.l., works, lb. .085 - —
l.c.l., works.....lb. .092 - —
tanks, works.....lb. .075 - —
Oxalate, dms., l.c.l., works..lb. .30 - —
Phthalate, dms., c.l., dlvd...lb. .21 - —
l.c.l., dlvd. .....lb. .21½- —
tanks, dlvd. .....lb. .20 - —
Sulphide, dms., l.c.l., works.lb. 1.10 - —
Diamylamine, dms., c.l., works, lb. .47 - —
l.c.l., works.....lb. .48 - .50
tanks, works .....lb. .45 - —
Diamylene, dms., c.l., works..lb. .096 - —
l.c.l., works .....lb. .102 - —
tanks, works .....lb. .085 - —
Diamylnaphthalene, dms., l.c.l., works..lb. .20 - —
Diamylphenol (2, 4), dms., c.l., works..lb. .17 - —
l.c.l. .....lb. .20 - —
Diatomaceous earth, dom., bgs., c.l., Pacific cst., works, ton.22.00 -35.00
l.c.l., ex whse.....ton.45.00 -150.00
import, bgs., c.l., c.i.f.....ton.23.00 Nom.
Dibutylamine, dms., c.l., works, lb .50 - —
l.c.l. .....lb. .51 - .55
tanks, works .....lb. .48 - —
Dibutyl ether (see Ether, butyl).
Phthalate, dms., c.l., dlvd...lb. .19 - —
l.c.l., dlvd. .....lb. .19½- —
tanks, dlvd.....lb. .18 - —
cns., works .....lb. .23½- .24¼
Sebacate, dms., wks.....lb. .45 - —
Tartrate, dom., dms.....lb. .50 - —
Dicalcium phosphate (see Calcium phosphate di-basic).
Dichlorethyl ether, dms., c.l., works..lb. .15 - —
l.c.l., works .....lb. .16 - —
tanks, works .....lb. .14 - —
Dichloropentane, dms., c.l., works, lb. .0821- —
l.c.l. .....lb. .04 - —
tanks .....lb. .025 - —
Diethanolamine, dms., c.l., works, lb. .24 - —
l.c.l., works .....lb. .26 - —
tanks, works .....lb. .23 - —
Diethylamine, dms., l.c.l., works, lb. .70 - —
Diethyl carbonate, comi., dms.lb. .25 - —
refd., 99%, dms.....lb. .35 - —
Carbinol (see Carbinol).
Phthalate, dms., c.l., frt. alld, lb. .19 - —
l.c.l. .....lb. .19½- —
tanks .....lb. .18 - —
Sulphate, dms., c.l., works..lb. .13 - —
l.c.l., works .....lb. .14 - —
tanks .....lb. .12 - —
Diethylaniliin, dms. .....lb. .40 - —
Diethyleneglycol, dms., c.l., works, lb. .16 - —
l.c.l., works.....lb. .17 - —
Monobutylether, dms., works.lb. .32 - .34
Monoethylether, dmsw., c.l., works..lb. .15 - —
l.c.l., works.....lb. .16 - —
tanks, works.....lb. .14 - —
Digitalis leaves, dms.....lb. .40 - .45
Digiycol laurate, c.l.....lb. .16 - —
Oleate, light, bbls., c.l.....lb. .13 - —
Stearate, bbls., c.l.....lb. .20 - —
Di-isobutyl ketone, dms., works, lb. .19 - —
Dillseed, recleaned, bgs.....lb. .12½- .13
Dimetnyl phthalate, dms., c.l., dlvd..lb. .18½- —
l.c.l., dlvd. .....lb. .19 - —
tanks, dlvd. .....lb. .17½- —
Dimethylaniliin, dms., c.l.....lb. .23 - —
l.c.l., dms. .....lb. .24 - —
Dimethylamine, dms., c.l., dlvd., lb. 1.00 - —
l.c.l., dlvd. .....lb. 1.05 - —
Dimethylethyl carbinol (see Carbinol)
Dinitrobenzene, bbls., 80° min., lb. .13 - —
Dinitrochlorobenzene, dms....lb. .14 - —
Dinitronaphthalene, kgs.....lb. .35 - .38
Dinitrophenol, bbls. .....lb. .22 - —
Dinitrotoluene, dms. .....lb. 15¼- —
oily, dms. .....lb. .09 - —
Diorthotoluoiguanidin, dms., 2,000 lbs. or over, dlvd..lb. .44 - —
600-1,950 lbs., dlvd.....lb. .46 - —
150-450 lbs., dlvd.....lb. .47 - —
Dioxan, dms., c.l., frt. alld....lb. .20 - —
l.c.l., same basis.....lb. .21 - —
tanks, same basis.....lb. .19 - —
Dip oil (see Tar acid oil).
Dipentene, dms. .....gal. .47 - .50
tanks .....gal. .41 - —
Diphenyl, bbls., c.l., works....lb. .16 - .20
l.c.l., works.....lb. .50 - .55
Oxide, perfume grade, cns....lb. .81 Nom.
Diphenylamine, bbls. .....lb. .81 Nom.
Diphenylguanidin, dms., 2,000 lbs., or over, dlvd..lb. .35 - —
600-1,950 lbs., dlvd.....lb. .36 - —
150-450 lbs., dlvd.....lb. .37 - —
Diphenylmethane, bots.....lb. 1.40 - 3.00
Disodium phosphate (see Soda phosphate, di-basic).
Divi-divi extract, bbls.....lb. .05¾- .06¾
Doggrass root, cut, bls.....lb. .18 - .20
Dogwood bark, Jamaica, bls., lb. .08 - .09
Dover's powder, USP, cns.....lb. 2.75 - 2.80
Dragon's blood, mass, cs.....lb. .65 - .70
reeds, thin, cs.....lb. 1.05 - 1.10
Dyes, coaltar (certified colors) for foods, drugs and cosmetics:—
Blue, FD&C blue, No. 1, cns..lb. 13.50 - —
FD&C blue, No. 2, cns.....lb. 13.50 - —
Green, FD&C green, No. 1, cns, lb. 13.50 - —
FD&C green, No. 2, cns....lb. 17.50 - —
FD&C green, No. 3, cns...lb. 27.50 - —
Orange, FD&C orange, No. 1, cns..lb. 2.90 - —
FD&C orange, No. 2, cns..lb. 3.65 - —
Red, FD&C red, No. 1, cns..lb. 6.00 - —
FD&C red, No. 2, cns.....lb. 3.15 - —
FD&C red, No. 3, cns.....lb. 17.50 - —
FD&C red, No. 4, cns.....lb. 5.75 - —
Yellow, FD&C yellow, No. 1, cns..lb. 8.50 - —
FD&C yellow, No. 3, cns..lb. 2.65 - —
FD&C yellow, No. 4, cns..lb. 2.65 - —
FD&C yellow, No. 5, cns..lb. 3.15 - —
FD&C yellow, No. 6, cns..lb. 3.15 - —
Dyes, coaltar (certified colors) for drugs and cosmetics:—
Brown, D&C brown, No. 1, cns, lb. 12.35 - —
Green, D&C green, No. 5, cns, lb. 12.35 - —
D&C, green, No. 6, cns....lb. 12.35 - —
Orange, D&C orange, No. 3, cns..lb. 8.35 - —
D&C orange, No. 4, cns...lb. 15.35 - —
D&C orange, No. 10, cns...lb. 15.85 - —
D&C orange, No. 11 cns...lb. 17.35 - —
Red, D&C, No. 17, cns.....lb. 8.35 - —
D&C, red No. 19, cns.....lb. 15.35 - —
D&C red, No. 22, cns.....lb. 8.35 - —
D&C red, No. 37, cns.....lb. 12.35 - —
Yellow D&C yellow, No. 7, cns, lb. 8.35 - —
D&C yellow, No. 8, cns....lb. 8.35 - —
Dyes, coaltar (certified colors) for external use drugs and cosmetics:—
Blue., Ext.D&C blue, No. 1, cns—lb. 12.35 - —
Green, Ext.D&C, green, No. 1, cns..lb. 12.35 - —
Red, Ext.D&C, red, No. 1, cns, lb. 10.35 - —
Ext.D&C, red, No. 10, cns.., lb. 12.35 - —
Ext.D&C, red, No. 11, cns, lb. 12.35 - —
Ext.D&C, red, No. 13, cns.., lb. 12.35 - —
Yellow, Ext.D&C, yellow, No. 1, cns..lb. 8.35 - —
Dyes, coaltar, for general uses (numbers are those of Colour Index scale):—
36 Chrome yellow 2G....lb. .65 - .70
40 Chrome yellow R.....lb. .50 - 1.00
53 Victoria violet.....lb. .80 - 1.00
165 Lake red C.....lb. .95 - 1.00
176 Fast red A.....lb. .60 - .75
180 Fast red VR.....lb. 1.50 - 1.65
189 Lake red R. paste....lb. .85 - .90
189 Lake red R, powd....lb. 3.00 - 3.10
202 Chrome blue black U..lb. .32 - .40
204 Chrome black A.....lb. 1.75 - 2.00
206 Fast red blue R.....lb. .75 - 2.00
216 Chrome red B.....lb. 1.75 - 2.00
262 Cloth red 2B.....lb. .60 - .80
289 Fast cyanin 5R.....lb. .90 - 1.00
299 Chrome black F.....lb. .60 - .65
307 Fast cyanin black B..lb. .80 - .85
325 Direct cast scarlet....lb. 2.00 - 2.25
304 Paper yellow.....lb. .83 - .90
365 Chrysophenin G.....lb. .58 - .70
394 Direct violet N.....lb. 1.25 - 1.30
382 Direct scarlet B.....lb. 1.50 - 1.75
387 Direct violet B.....lb. 1.00 - 1.30
401 Developed black BHN.lb. .50 - .75
406 Direct blue 2B.....lb. .25 - .30
415 Direct orange R.....lb. .60 - .70
419 Direct fast red F.....lb. .75 - .85
420 Direct brown M.....lb. 1.00 - 1.10
448 Benzo purpurin 4B....lb. .40 - .42½
495 Benzo purpurin 10B..lb. .40 - .50
502 Direct azurin G.....lb. .75 - .80
512 Direct blue RD.....lb. .80 - 1.00
518 Direct pure blue 6B...lb. 1.10 - 1.25
520 Direct pure blue.....lb. .50 - 1.00
529 Direct fast, black, FF.lb. .55 - 1.00
581 Direct black EW.....lb. .25 - .50
582 Direct black RX.....lb. .35 - .45
593 Direct green B.....lb. .75 - .80
594 Direct green G.....lb. 1.00 - 1.05
598 Direct brown 3GO....lb. .25 - 1.00
620 Direct yellow R.....lb. 1.25 - 1.50
698 Acid violet.....lb. 1.00 - 3.00
812 Primulin .....lb. .50 - .52
814 Direct fast yellow....lb. 2.00 - 2.25
845 Nigrosin (water soluble), lb. .35 - .50
1177 Indigo, 20 p. c. paste.lb. .15 - .18
Benzo fast black L....lb. .90 - 1.00
Sulphur black.....lb. .20 - .25
Sulphur blue.....lb. .40 - 1.00
Sulphur brown.....lb. .25 - .50
Sulphur maroon.....lb. .40 - —
Sulphur olive.....lb. .26 - .54
Sulphur tan.....lb. .30 - .50
Sulphur yellow.....lb. .30 - .50
Zambesi black.....lb. .75 - .80
Dyes, coaltar, for stains, oil-soluble (prices in barrels of 100 lbs.; lots of 25 pounds to a barrel are 3c. per lb. higher; f.o.b. sellers' works or warehouse)
Black:—
865 Nigrosin derivatives..lb. .42 - —
Blue:—
1075 Alizarin astrol base...15.00 - —
1078 Alizarin cyanin green base..lb. 6.00 - —
Browns:—
Brown .....lb. 1.15 - —
Green:—
1078 Alizarin cyanin green.lb. 5.00 - —
.... Green .....lb. .75 - —
Orange:—
24 Sudan I.....lb. .75 - —
.... Orange, red shade..lb. .75 - —
Red:—
75 Sudan II.....lb. 1.05 - —
238 Sudan IV.....lb. .95 - —
749 Rhodamine B (oil pink) lb. 2.50 - —
1080 Anthraquinone violet base..lb. 6.00 - —
680 Oil violet.....lb. .50 - —
Dyes, coaltar, for stains, oil-soluble (prices in barrels of 100 lbs.; lots of 25 pounds to a barrel are 3c. per lb. higher; f.o.b. sellers' works or warehouse)
Yellow:—
13 Amidoazobenzene yellow..lb. .90 - —
17 Amidoazotoluene yellow, lb. .75 - —
61 Yellow OB.....lb. 1.40 - —
Spirit-soluble (prices in barrels of 250 lbs. each; lots of 25 lbs. to a barrel, 3c. per lb. higher; f.o.b. sellers' works or ware house).
Black:—
864 Nigrosin .....lb. .40 - —
Blue:—
860 Indulin .....lb. .70 - —
Brown:—
231 Bismarck brown.....lb. 1.50 - —
Green:—
637Malachite green base.lb. 2.00 - —
Orange:—
20 Chrysoidin G.....lb. .95 - —
21 Chrysoidin R.... ....lb. .95 - —
Red:—
677 Fuchsin, magenta base, lb. 7.25 - —
749 Rhodamine B.....lb. 4.75 - —
Yellow:—
67 Amidoazotoluene yellow..lb. .75 - —
655 Auramine .....lb. 2.00 - —
900 Chinolin yellow SS...lb. 2.00 - —
Violet:—
650 Methyl violet.....lb. .70 - —
Water-soluble (prices in barrels of 250 lbs. each; lots of 25 lbs. to a barrel, 3c. per lb. higher; f.o.b. sellers' works or warehouse).
Black:—
246 Naphthol blue black S, lb. .50 - —
873 Methylene gray.....lb. 1.50 - —
Blue:—
714 Patent blue A.....lb. 1.45 - —
729 Victoria blue B.....lb. 2.00 - —
861 Indulin .....lb. .87 - —
909 New blue R.....lb. 1.50 - —
922 Methylene blue.....lb. 1.00 - —
1054 Alizarin saphirol B..lb. 1.90 - —
1189 Indigotin IA.....lb. .85 - —
Browns:—
234 Resorcin brown Y...lb. .65 - —
253 Resorcin dark brown R lb. .66 - —
231 Bismarck brown G..lb. .53 - —
332 Bismarck brown R..lb. .37 - —
793 Phosphin .....lb. 4.65 - —
Green:—
5 Naphthol green B...lb. 1.00 - —
657 Malachite green.....lb. 1.35 - —
662 Brilliant green.....lb. 2.00 - —
666 Guinea green B.....lb. 1.15 - —
737 Wool green S.....lb. .58 - —
924 Methylene green B..lb. 1.55 - —
1078 Alizarin cyanin green, lb. 2.35 - —
Orange:—
10 Chrysoidin G.....lb. .40 - —
21 Chrysoidin R.....lb. .37 - —
27 Orange G.....lb. .50 - —
151 Orange Y.....lb. .30 - —
161 Orange R.....lb. .34 - —
Red:—
81 Amidonaphthol red G, lb. .42 - —
87 Amidonaphthol red 9B, lb. .68 - —
79 Popceau R.....lb. .48 - —
88 Fast red B.....lb. 1.05 - —
176 Fast red A.....lb. .54 - —
179 Azorubin .....lb. .60 - .62
183 Crocein scarlet 3BX.lb. .72 - .75
185 Cochineal red A....lb. .60 - —
252 Brilliant crocein M..lb. .68 - —
677 Fuchsin .....lb. 2.10 - —
749 Rhodamine B.....lb. 3.50 - —
752 Rhodamine 6G.....lb. 4.50 - —
763 Eosin G.....lb. 1.50 - —
841 Safranin .....lb. 1.45 - —
Violet:—
680 Methyl violet B.....lb. .75 - —
681 Crystal violet C.....lb. 1.75 - —
695 Acid violet 4BN....lb. .88 - —
Yellow:—
10 Naphthol yellow S..lb. .83 - —
138 Metanil yellow.....lb. .53 - —
636 Fast light yellow...lb. 1.25 - —
639 Xylene light yellow.lb. 1.15 - —
640 Tartrazin .....lb. .80 - —
655 Auramine .....lb. 1.27 - —
Dyes, natural (see name of article).

E

Echinacea root, bls.....lb. .18 - .19
Egg albumen (see Albumen).
yolk, dom., bbls.....lb. .62 - .64
imported .....lb. .59 - .62
Elder flowers, bright, bls.....lb. .45 - .47
Elecampane root, bls.....lb. .10 - .11
Elm bark, grinding, bls.....lb. .10½- .11
powd., bbls., bxs.....lb. .20 - .21
select, bndls. .....lb. .19 - .21
Emetine hydrochloride, bots..oz. 19.00 -19.50
Ephedra, bls. .....lb. .10 - .10½
Ephedrine, tins, 1,000 ozs.....oz. 1.50 - —
tins, 100 ozs.....oz. 1.60 - —
Hydrochloride, tins, 1,000 oz., lots..oz. 1.25 - —
tins, 100 oz., lots.....oz. 1.35 - —
Sulphate, cryst., tins, 1,000-oz. lots..oz. 1.25 - —
tins, 100-oz. lots.....oz. 1.35 - —
Epsom salt, tech., bgs....100 lbs. 1.80 - —
bbls. .....100 lbs. 1.90 - —
USP, cryst., dom., bgs., c.l., 100 lbs. 2.00 - —
l.c.l., 5,000 lbs 1 withdrawal..100 lbs. 2.25 - —
smaller lots....100 lbs. 2.50 - —
bbls., c.l.....100 lbs. 2.10 - —
l.c.l., 5,000 lbs., 1 withdrawal..100 lbs. 2.35 - —
smaller lots....100 lbs. 2.60 - —
kgs., c.l.....100 lbs. 2.35 - —
l.c.l., 5,000 lbs., 1 withdrawal..100 lbs. 2.60 - —
smaller lots.....100 lbs. 2.85 - —
dried, dom., bgs., l.c.l...lb. .06 - .09
Ergot, USP, cns., dms.....lb. 3.25 - 3.75
Eserine, bots. .....oz. 42.00 - —
Salicylate, bots. .....oz. 36.00 - —
Sulphate, bots. .....oz. 36.00 - —
Ether, acetic (see Ethyl acetate)
Butyl, dms., c.l., dlvd.....lb. .24½- —
l.c.l., dlvd. .....lb. .25 - —
cns. .....lb. .28 - .31
Ethyl (see Ether, sulphuric).
Nitrous, conc., bots., 100 lbs., lb. .68 - —
Sulphuric, conc., dms., 120 lbs., lb. .09 - —
cns., 27 lbs. .....lb. .14 - —
synth., dms., c.l., works..lb. .08 - —
l.c.l., works.....lb. .09 - —
USP, anesthesia, dms., 27 lbs., lb. .26 - —
USP, 1880, dms.....lb. .39 - .40
washed, dms. .....lb. .37 - .38
Ethyl acetate, 85-90%, dms., c.l., frt. alld..lb. .071 - —
l.c.l., frt. alld.....lb. .076 - —
tanks, frt. lld.....lb. .061 - —
95-98%, dms., c.l., frt. alld..lb. .0785- —
l.c.l., frt. alld.....lb. .0835- —
tanks, frt. alld.....lb. .0685- —
Ethyl, acetate, N. F., VI, 90%, dms., 400 lbs..lb. .09 - —
cns., 35 lbs.....lb. .13 - .14
USP, VIII, 90%, dms., 480 lbs. lb. .08 - —
cns., 35 lbs.....lb. .13 - —
Acetoacetate, dms., c.l., work..lb. .27½- —
l.c.l., dms., works.....lb. .28 - —
Bromide, tech., dms.....lb. .50 - .55
Caproate, cns.....lb. 1.00 - —
Chloride, dms.....lb. .18 - .20
Cinnamate, cns.....lb. 3.20 - 4.00
crotonate, 55 gal. dms., dlvd., lb. .35 - —
Formate, cns., dms.....lb. .23 - .24
5 and 10 gal. dms., dlvd....lb. .75 - —
1 gal. cns.....lb. 1.00 - —
Iodide, bots. .....lb. 3.50 - 3.65
lactate, 55-gal. dms., works. lb. .33½- —
5-gal. dms., works.....lb. .37½- —
Oxalate, dms., frt. alld.....lb. .25 - —
Silicate, l.c.l., dms., works..lb. .77 - —
Vanillin, 25 lbs. lots., cns., lb. 6.00 - —
5-lb. lots .....lb. 6.05 - —
1-lb. lots, cns.....lb. 6.15 - —
Ethylcellulose, contracts, bgs., c.l., frt. alld..lb. .45 - —
contracts, 500 lbs. or more, frt. alld..lb. .47 - —
500 lbs. or more frt. alld., lb. .48 - —
100 to 499 lbs., frt. alld., lb. .50 - —
smaller lots, works.....lb. .55 - —
Ethylene bromide, dms.....lb. .65 - .70
Dichloride, dms., c.l., works, E. of Rockies, frt. alld..lb. .0545- .0650
West of Rockies, same basis..lb. .0595- .06
l.c.l., works, E. of Rockies, frt. alld..lb. .0644- .0658
West of Rockies, same basis..lb. .0694- .07
Ethyleneglycol, dms., c.l.....lb. .16 - —
l.c.l. .....lb. .17 - .20
tanks .....lb. .15 - —
Monobutylether, dms., c.l., works..lb. .18 - —
l.c.l., works.....lb. .19 - .22
tanks, works.....lb. .17 - —
Monoethylether, dms., c.l., works, lb. .16 - —
l.c.l., works.....lb. .16 - —
tanks, works.....lb. .14 - —
Monoethylether, acetate, dms., c.l., works..lb. .13 - —
l.c.l., dms. .....lb. .14 - —
tanks, works.....lb. .12 - —
Monomethylether, dms., c.l., works..lb. .17 - —
l.c.l., works.....lb. .18 - —
tanks works.....lb. .16 - —
Ethylidinaniliin, dms. .....lb. .45 - .47¼
Eucalyptol, cns., dms.....lb. .85 Nom.
Eucalyptus leaves, bls.....lb. .13 - .15
Eugenol, cns., dms.....lb. 2.25 - 2.30
Euphorbia, bls.....lb. .18 - .19

F

Feldspar, enamel, 100 mesh, bulk, works..ton. 14.00 -17.50
glass, 20 mesh, bulk, works.ton. 9.75 -13.25
l.c.l., same basis.....lb. .19¼- —
88/251, bgs., c.l., same basis.. lb. .19¼- —
l.c.l., same basis.....lb. .20¼- —
pottery, bulk, Me., works...ton. 17.00 -19.00
N.C. works .....ton. 17.00 -19.00
Fennel seed, Indian, bgs.....lb. .15 - .16
German, large, bgs.....lb. .33 - .34
Fenugreek seed, bgs.....lb. .08 - .10
Ferric Sulphate, anhyd., c.l., works..ton. 35.00 - —
l.c.l. .....ton. 40.00 - —
Film scrap, colors, dark, cs., 1,000 lbs., or over, works...lb. .10½- —
smaller lots, works...lb. .12 - —
light, cs., 1,000 lbs. or over, works..lb. .11½- —
smaller lots, works..lb. .13 - —
water white, cs., 1,000 lbs., or over, works..lb. .12½- —
smaller lots, works..lb. .14 - —
Fir balsam, Canada, cns.....gal. 12.75 -13.00
Oregon, bbls.....gal. 1.10 - 1.15
Fish berries, bgs.....lb. .15 - .17
Fish scrap, menhaden, dried, 11-12% ammon., 15% bone phos., bulk, Chesapeake factories, contracts, futures..unit-ton. 4.25 & .10
grd., 11-12% ammon., 15% bone phos., bgs., f.o.b. Balto..ton. 58.00 - —
wet, acidulated, 6-7% ammon., 3-4% phosphor, acid, bulk, So. Atlantic factories, contracts..unit-ton. 3.00 & .50
sardine, meal, Japanese, 11½% ammon., bgs., c.i.f. ports, Oct.-Nov., shipt..ton. 52.50 - —
spot..ton. 53.00 - —
Flake, white, bbls., kgs.....lb. .10¾- —
Fleaseed, French, black, bgs..lb. .20 - .21
Indian, blonde, bgs.....lb. .09 - .10
Fluorspar, dom., No. 1 ground, bulk, 95-98%, f.o.b. mines, net ton. 31.60 - —
washed gravel, 85-5, f.o.b. Ill.-Ky. mines..net ton. 20.00 -20.50
No. 2, lump, 85.5 f.o.b. Ky. and Ill. mines...net ton. 21.00 -22.00
imported, 85.5, duty paid, short ton. 26.50 Nom.
Formaldehyde, bbls., c.l., works, lb. .05¾- —
l.c.l., works .....lb. .06¼- —
dms., c.l., works.....lb. .05¼- —
l.c.l., works .....lb. .05¾- —
tanks, works .....lb. .04½- —
Fringetree bark, bls.....lb. .12 - .14
Fullers earth, dom., bgs., c.l., f.o.b. Fla., Ga., mines..ton. 10.00 - —
import, bgs., c.l., ex dock.ton. 25.00 Nom.
l.c.l., ex whse.....ton. 32.00 Nom.
Furfural, refd., dms., c.l., works, lb. .15 - —
l.c.l., works.....lb. .17½- .25
tech., dms., contracts, 150,000 lbs..lb. .10 - —
c.l., works.....lb. .12½- —
l.c.l., works.....lb. .15 - .20
tanks, works.....lb. .09 - —
Fusel oil, refd., dms., incl., dlvd., lb. .16 - .17½
Fustic extract, cryst., bbls....lb. .22 - .26
liquid, bbls.....lb. .09½- .13
solid, dms.....lb. .17½- .19¼

G

G salt, bbls.....lb. .45 - —
Galangal root, bls.....lb. .15 - .20
Gambier, common, cases.....lb. .08 Nom.
plantation, cases.....lb. .10 Nom.
Cubes, Singapore, cases....lb. .11 Nom.
extract, bbls.....lb. .09 - .12

Gasoline, at refinery:—
Bayonne, US motor, below 65 octane, tanks..gal. .07¼- .07½
65 octane and above, tanks, gal. .07½- .08
California, 54-58, tanks...gal. .08½- .08
Gulf Coast, U.S. Motor, bulk, gal. .06 - —
60-62, 390 e.p., bulk, export, gal. .05¾- —
Gulf Coast, U.S. motor spirit, 70-72, 400 e.p., bulk, export, gal. .06¾- —
64-66, 375 e.p., bulk, export, gal. .06¼- —
Louisiana Arkansas, US motor, 62 octane, tanks..gal. .04 - .04¼
63-66 octane, tanks....gal. .04¼- .04½
67-69 octane, tanks....gal. .04¼- .04¾
70-72 octane, tanks....gal. .04¾- .05⅛
Oklahoma-Texas, US motor, 62 octane and below, tanks..gal. .04 - .04⅝
third grade, tanks..gal. .04 - .04⅝
63-66 octane, tanks....gal. .04⅝- .05
67-69 octane, tanks....gal. .04⅞- .05½
70-72 octane, tanks....gal. .05⅛- .05½
natural, 12-lb. v.p., tanks.gal. .06 - .06¼
14-lb. v.p., tanks.....gal. .05⅜- —
18-lb. v.p., tanks.....gal. .05½- .05¼
22-lb. v.p., tanks.....gal. .04⅜- —
26-70 lb. v.p., tanks...gal. .04¼- —
below 60 octane, tanks.gal. .05 - —
65 octane, tanks.....gal. .07 - —
52-56 450 e.p., naphtha, tanks..gal. .05½- —
Gelatin, silver, cs.....lb. .42 - .48
Geisemium root, bls.....lb. .25 - .26
Gentian root, bls.....lb. .18 - .20
grd., bbls., bxs.....lb. .21 - .23
powd., bbls., bxs.....lb. .22 - .24
Geraniol, cns., dms.....lb. .67 - 3.00
Geranyl acetate, bots., dms...lb. 1.20 - 2.50
Ginger root, African, bgs.....lb. .08 - .08½
Cochin, leman, bgs.....lb. .09½ Nom.
Jamaica, bold, bgs.....lb. .12 - .13
grinding, bright, bgs.....lb. .08½- .09
medium, bgs. .....lb. .10 - .10½
Japanese, bgs.....lb. .08½- .09
Ginseng root, wild, Southern, cs., lb.12.00 -13.00
Glauber's salt, anhyd. (see Soda Sulphate).
cryst., dom., bgs., bbls., c.l., works..100 lbs. .95 - 1.18
5 tons or over, works.... 100 lbs. 1.05 - 1.25
less than 5 tons, works.. 100 lbs. 1.15 - 1.35
import, bgs.....100 lbs. No prices
Glue, bone, calcimine type,24 millipoise, 36 jelly-grams, bgs, c.l., dlvd..lb. .13 - —
l.c.l., dlvd.....lb. .13½- —
36/58, bgs., c.l., dlvd.....lb. .12½- —
l.c.l., dlvd.....lb. .13 - —
58/82, bgs., c.l., dlvd.....lb. .14 - —
l.c.l., dlvd.....lb. .14½- —
82/108, bgs., c.l., dlvd....lb. .14½- —
l.c.l., dlvd.....lb. .15 - —
hide, calcimine type, 58 millipose 135 jelly grams, bgs., c.l., dlvd., East, Middlewest..lb. .15 - —
l.c.l., same basis.....lb. .15½- —
60/164, bgs., c.l., same basis, lb. .16½- —
l.c.l., same basis.....lb. .17 - —
67/122, bgs., c.l., same basis, lb. .17½- —
l.c.l., same basis.....lb. .18 - —
75/222, bgs., c.l., same basis, lb. .18½- —
92/283, bgs., c.l., same basis, lb. .20½- —
l.c.l., same basis.....lb. .21½- —
102/315, bgs., c.l., same basis, lb. .21 - —
l.c.l., same basis.....lb. .22 - —
113/347, bgs., c.l., same basis, lb. .22 - —
l.c.l., same basis.....lb. .23 - —
125/379, bgs., c.l., same basis, lb. .23 - —
l.c.l., same basis.....lb. .24 - —
Glue prices for barrel packing, ½c. lb. higher, grinding charge, 20-40 mesh, ½c. lb.; 60 mesh, 1c. lb.
Glycerin, C.P., cns., l.c.l.....lb. .14½- .15
dms., c.l., dlvd.....lb. .12½- —
l.c.l dlvd.....lb. .13 - —
tanks, dlvd.....lb. .12¼- —
dynamite, dms.....lb. Nominal.
high gravity, dms., c.l., dlvd.lb. .12 - —
l.c.l., dlvd.....lb. .12½- —
tanks, dlvd.....lb. .11¾- —
saponification, basis 88%, for industrial users, special colors, dms., returnable, c.l., dlvd.lb. .09 - —
l.c.l., same basis....lb. .09½- .10
tanks .....lb. .08¾- —
for refiners, dms., returnable, tanks, dlvd..lb. .08¾ Nom.
soapiye, basis 80%, dms., tanks, returnable, dlvd..lb. .07¾ Nom.
Glycol boriborate, dms.....lb. .22 - —
Phthalate, dms.....lb. .38 - —
Stearate, dms.....lb. .24 - —
Gold, U.S. purchase price.....oz.35.00 - —
Chloride, acid brown, bots..oz.20.75 -21.00
yellow, bots.....oz.18.75 -19.00
Gold-soda chloride, photo., bots., oz.13.00 - —
USP IX, bots.....oz.14.50 -14.75
Gold of pleasure seed, bgs.....lb. .12½- .13
Goldenseal, root, bls.....lb. 3.60 - 3.65
powd., bxs.....lb. 3.90 - 3.95
Grains of paradise, bgs.....lb. .70 - .75
Graphite, flake (cryst.), 90%, 325 mesh, 50% graphitic carbon, bgs., c.l., works..lb. .06 - —
l.c.l., works.....lb. .06½- —
amorph., powd., 80%, 325 mesh, 65% graphitic carbon, bgs., c.l. works.....lb. .02½- —
65% graphitic, carbon, bbls., c.l., works..lb. .02¾- —
l.c.l., works.....lb. .03¼- —
80% graphitic, carbon, bgs., c.l., works..lb. .03½- —
bbls., c.l., works.....lb. .03¾- —
l.c.l., works.....lb. .04½- —
Grease, house, loose.....lb. .05¾- .05¾
White .....lb. .06 - .06½
Yellow .....lb. .05¾- .05⅞
Wool (see Adeps lanae and Degras).
Green, chrome, C.P., dark, light, medium, blue content up to 5%, bbls., dlvd. N. of Tenn. and N. C., E. of Miss. river, including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis..lb. .31 - —
6-10%, bbls. same basis.lb. .25 - —
11-15%, bbls., same basis.lb. .26 - —
16-20%, bbls., same basis.lb. .32½- —
21-25%, bbls., same basis.lb. .34 - —
26-30%, bbls., same basis.lb. .34½- —
31-35%, bbls., same basis.lb. .35¾- —
36-40%, bbls., same basis.lb. .37 - —
41-45%, bbls., same basis.lb. .28½- —
46-50%, bbls., same basis.lb. .40 - —
Green, chrome, prices are ½c. higher dlvd. Ala., Fla., Ga., La., (Shreveport, 1¼c.), Miss., N. C., S. C., Tenn., Texas (Dallas, Ft. Worth, 1¼c.; El Paso, 2c.), Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; ½c. higher dlvd Pac. coast; for Denver, Pueblo, Salt Lake City, Wichita, prices are equalized with Chicago.

Green, chrome, reduced, C.P., color content up to 5%, same basis..lb. .06 - —
6-10%, bbls., same basis.lb. .06¾- —
11-15%, bbls., same basis.lb. .07¼- —
16-20%, bbls., same basis.lb. .07¾- —
17-19%, bbls., same basis.lb. .07¾- —
20-21%, bbls., same basis.lb. .08 - —
22-23%, bbls., same basis.lb. .08¼- —
24-25% bbls., same basis.lb. .08½- —
20-27%, bbls., same basis, lb. .08¾- —
28-29%, bbls., same basis.lb. .09¼- —
30-31%, bbls., same basis.lb. .10 - —
32-33%, bbls., same basis.lb. .11¼- —
34-35%, bbls., same basis.lb. .12¼- —
36-40%, bbls., same basis.lb. .14¼- —
41-45%, bbls., same basis.lb. .16¼ —
46-50%, bbls., same basis.lb. .16¾- —
51-55%, bbls., same basis.lb. .17¼- —
56-60%, bbls., same basis.lb. .17¾- —
61-65%, bbls., same basis.lb. .18¼- —
66-70%, bbls., same basis.lb. .19¼- —
71-75%, bbls., same basis.lb. .20¼- —
Oxide, dome., pure, bbls...lb. .28 - —
ceramic, light shades, bbls., c.l., works..lb. .28 - —
l.c.l., works.....lb. .30 - —
standard grade, bbls., works..lb. 71 — 72
Tetrahydroxide, bbls.....lb. .65 - —
Paris (see P).
Tungstated, brilliant, kgs....lb. 2.50 - —
emerald, kgs.....lb. 2.35 - —
Verdigris (see V)
Green dyes are listed under Dyes.
Grindelia robusta, bls.....lb. .09 - .10
Guaiac resin, cs.....lb. .80 - .85
strained, cs.....lb. .80 - .85
Wood, bls. .....lb. .04 - .06
Guaiacol, liq., djns.....lb. 1.65 - 1.91
Carbonate, flb., dms., 25 lbs..lb. 2.40 - 2.74
Guarana, powd., cs.....lb. 1.10 - 1.13
Gum, aloe (see A).
Ammoniac, tears, cs.....lb. .85 - .90
Gum, arabic, amber sorts, cleaned, bgs..lb. .24 Nom.
white, sorts, 1, bgs.....lb. .35 Nom.
2, bgs.....lb. .34 Nom.
powd., bbls.....lb. .27 Nom.
Asafetida (see A).
Asphaltum (see A).
Benzoin, Siam, cs.....lb. 1.40 - 1.60
Sumatra, cs.....lb. .30 - .33
Camphor (see C).
Chicle, prime, 33% moisture, bgs., ton lots..lb. .34 - .35
Copal, Congo, 1, water white, transparent, bgs., c.l., ex dock or ex whse., N. Y. or San Fran.....lb. .52½- —
Gum, copal, dammar, elemi, kauri, mastic, sandarac, and yacca gums prices c.l. (30,000 lbs. min.) apply to assorted lots of gums as well as one grading; l.c.l. prices are ¼c. higher for 10 bgs. or over; ½c. higher for 1-9 bgs.
Congo, cloudy, white, bgs., c.l., same basis..lb. .29½- —
3, selected pale straw bold, bgs., c.l., same basis..lb. .24½- —
4, pale bold straw, bgs., c.l., same basis..lb. .24 - —
5, pale, straw bold, bgs., c.l., same basis..lb. .24 - —
6, pale amber bold, bgs., c.l., same basis..lb. .21½- —
7, pale, straw, bold, bgs., c.l., same basis..lb. .17 - —
8, light amber bold, bgs., c.l., same basis..lb. .17 - —
9, medium light amber, bold, bgs., c.l., same basis..lb. .13½- —
10, rescraped hard amber bold, bgs., c.l., same basis, lb. .13¾- —
11, hard dark amber bold, bgs., c.l., same basis..lb. .10¾- —
12, selected bold sorts, bgs., c.l., same basis..lb. .10¼- —
13, dark sorts bold, bgs., c.l., same basis..lb. .07⅞- —
14, selected, fully scraped, ivory, bgs., c.l., same basis..lb. .23⅞- —
15, ordinary ivory sorts, bgs., c.l., same basis..lb. .10¼- —
16, inferior ivory sorts., bgs., c.l., same basis..lb. .08⅝- —
17, pale, fingers, bgs., c.l., same basis..lb. .17¼- —
18, pale straw nubs, bgs., c.l., same basis..lb. .17 - —
19, pale straw nubs, bgs., c.l., same basis..lb. .16⅝- —
20, hard dark amber nubs, bgs., c.l., same basis..lb. .11½- —
21, ordinary selected nubs, c.l., same basis..lb. .10½- —
22, small mixed nubs, bgs., c.l., same basis..lb. .09⅝- —
23, dark mixed nubs, bgs., c.l., same basis..lb. .09⅞- —
24, No. 1, ivory nubs, bgs., c.l., same basis..lb. .17¼- —
25, No. 2, natural ivory nubs, bgs., c.l., same basis, lb. .09½- —
26, pale, bold chips, bgs., c.l., same basis..lb. .09½- —
27, pale small nubs, bgs., c.l., same basis..lb. .08⅝- —
28, pale dust, bgs., c.l., same basis..lb. .06¾- —
Batu, bold, scraped, bgs., c.l., same basis..lb. .08 - —
unscraped, bgs., c.l., same basis..lb. .06¾- —
chips, bgs., c.l., same basis..lb. .06¼- —
dust, bgs., c.l., same basis..lb. .06½- —
nubs and chips, bgs., c.l., same basis..lb. .06¼- —
black, bold, scraped, bgs., c.l., same basis..lb. .10½- —
unscraped, bgs., c.l., same basis..lb. .07¼- —
nubs and chips, bgs., c.l., same basis..lb. .07¼- —
Hiroe, Macassar, pale, bold, bgs., c.l., same basis..lb. .15¼- —
chips, bgs., c.l., same basis..lb. .08½- —
dust., bgs., c.l., same basis..lb. .06½- —
nubs, bgs., c.l., same basis..lb. .13¾- —
Singapore, Rasak, bold, bgs., c.l., same basis..lb. .16⅞- —
chips, bgs., c.l., same basis, lb. .08¾- —
dust, bgs., c.l., same basis.lb. .06½- —
nubs, bgs., c.l., same basis, lb. .12 - —
Manila, Boeas, amber and dark, bskts., c.l., same basis..lb. .13⅞- —
light, bskts., c.l., same basis..lb. .15⅞- —
Loba A, bskts., c.l., same basis..lb. .13⅝- —
B, bskts., c.l., same basis.lb. .13 - —
C, bskts., c.l., same basis, lb. .12⅝- —
CNE, bskts., c.l., same basis..lb. .10¼- —
D, bskts., c.l., same basis, lb. .11⅛- —
DK, bskts., c.l., same basis, lb. .09⅝- —

Gum, copal, Manila, D. K., dust, bskts. c.l., same basis, lb. .07⅜- —
Sambas and white split chips, bskts., c.l., same basis..lb. .17½- —
Singapore, dust., bskts., c.l. same basis..lb. .07¾- —
spirit-soluble, CBB, bskts., basis..lb. .11⅝- —
DBB, bskts., c.l., same basis..lb. .11 - —
MA, bskts., c.l., same basis, lb. .09⅝- —
MB, bskts., c.l., same basis, lb. .09⅛- —
WS, bskts., c.l., same basis, lb. .11 - —
Philippine, Manila, amber sorts,, bskts., c.l., same basis..lb. .10 - —
chips, pale, bskts., c.l., same basis..lb. .11¼- —
pale, small, bskts., c.l., same basis..lb. .10¼- —
extra pale sorts, bskts., c.l., same basis..lb. .11⅝- —
nubs, bskts., c.l., same basis..lb. .13¼- —
pale, scraped, bskts., c.l., same basis..lb. .14 - —
seeds and dust, bskts., c.l., same basis..lb. .08⅜- —
Pontianak, bold, genuine, bgs., same basis..lb. .18½- —
mixed, bgs., c.l., same basis, lb. .16⅝- —
split, bgs., c.l., same basis, lb. .16⅛- —
chips, bgs., c.l., same basis, lb. .09⅛- —
nubs, bgs., c.l., same basis, lb. .12¼- —
Dammar, Batavia, A, cs., c.l., same basis as copal..lb. .22¾- —
A/D, cs., c.l., same basis..lb. .15¼- —
A/E, cs., c.l., same basis..lb. .13¾- —
B, cs., c.l., same basis....lb. .21½- —
C, cs., c.l., same basis....lb. .15⅝- —
D, cs., c.l., same basis....lb. .14¼- —
dust, cs., c.l., same basis..lb. .07⅝- —
E, cs., c.l., same basis....lb. .10 - —
F, cs., c.l., same basis....lb. .08¾- —
Singapore 1, cs., c.l., same basis..lb. .18⅝- —
2, cs., c.l., same basis....lb. .14⅞- —
3 cs., c.l., same basis....lb. .07¾- —
chips, cs., c.l., same basis.lb. .12½- —
dust., cs., c.l., same basis, lb. .07¾- —
seeds, cs., c.l., same basis, lb. .10½- —
Elemi, cns., c.l., same basis as copal..lb. .13 - —
Ester, dms., dlvd., New England, N. J., eastern N. Y. and Pa., Del., and Md., 75,000 lbs., contrs. or single shipt., 10,000 lbs., lb. .06¼- .06⅝
less than 10,000 lbs., same basis..lb. .06½- .07
dlvd., western N.Y., and Pa., Ohio, Mich., Ind., Ill., Wis., Minn., Iowa, Mo., Ky., Va., W. Va., and N. C., 75,000 lbs., contrs. or straight c.l.....lb. .06¾- .07
l.c.l., same basis.....lb. .07 - .07½
dlvd., elsewhere, 75,000 lbs., contrs., or straight, c.l..lb. .07 - .07½
l.c.l., same basis.....lb. .07¼- .07⅝
Euphorbium, cs. .....lb. .50 - .55
Galbanum, cs.....lb. 1.00 - 1.50
Gamboge, pipe, cs.....lb. .75 - .80
powd., bbls.....lb. .80 - .85
Ghatti, soluble, bgs.....lb. .11 - .15
superior, bgs.....lb. .09 - .11
Guaiac (see Guaiac resin).
Karaya, bbls., bxs., dms.....lb. .14 - .33
Kauri, brown, XXX, cs., c.l., lb. .60 Nom.
BX, cs., c.l., same basis..lb. .38 Nom.
B1, cs., c.l., same basis..lb. .28 Nom.
B2, cs., c.l., same basis..lb. .24 Nom.
B3, cs., c.l., same basis..lb. .18½ Nom.
80% chips, cs., c.l., same basis..lb. .12½ Nom.
pale, XXX, cs., same basis.lb. .61 Nom.
1, cs., c.l., same basis...lb. .41 Nom.
2, cs., c.l., same basis...lb. .24 Nom.
3, cs., c.l., same basis...lb. .17¾ Nom.
Kino, tins.....lb. 4.00 - 4.50
Locust bean, powd., bbls....lb. Nominal
Mastic, cs., c.l., same basis as copal..lb. .85 - .90
Myrrh, USP, cs.....lb. .70 - .77
Olibanum, cs.....lb. .09 - .25
Opium (see O)
Rosin (see R)
Sandarac, cks., c.l., same basis as copal..lb. .37 Nom.
Scammony, cs. .....lb. 1.10 - 1.15
Talha, bgs.....lb. .14 Nom.
Thus, bbls. .....280 lbs.15.00 -15.25
Tragacanth, Alleppo, 1 cs....lb. 2.50 Nom.
2, cs.....lb. 2.40 Nom.
3, cs.....lb. 2.25 Nom.
flake, bgs.....lb. No prices
Yacca, bgs.....lb. .08½- .04
Gypsum, Keene's cement, paper bgs., c.l., f.o.b. Acme, Tex., frt. equal.ton.21.15 - —
Medicine Lodge, Kans., frt. equald..ton.17.60 - —
New Brighton, N. Y., frt. equald..ton.27.15 - —
Southard, Okla., frt. equald..ton.17.60- —
Sweetwater, Tex., frt. equald..ton.21.15 - —
plaster of paris, paper bgs., c.l., f.o.b. Acme, Tex., frt. equaled..ton.12.50 - —
Blue Rapids, Kans., frt. equld..ton.12.50 - —
New Brighton, N. Y., frt. equald..ton.14.00 - —
Southard, Okla., frt. equald..ton.12.50 - —
Sweetwater, Tex., frt. equald..ton.12.89 - —
Acme, Tex.; Blue Rapids, Kans.; Fort Dodge, Ia.; Grand Rapids, Mich.; Gypsum, O.; New Brighton, N. Y.; Plasterco, Va.; Southard, Okla.; Sweetwater, Tex., frt. equald.....ton. 3.00 - —
terra alba, dom., paper bgs., c.l., f.o.b. New Brighton, N. Y.; Southard, Okla., frt. equald..ton.12.00 - —
import, bgs., ex dock....ton.26.00 Nom.

H

Hawthorn berries, bgs.....lb. .35 - .37
Heliotropin, cryst., cns.....lb. 2.75 Nom.
Hellebore root, white, powd., bbls. lb. .10 - .17
Helonias root, bls.....lb. .50 - .55
Hematine crystals, bbls.....lb. .18 - .36
Hemlock bark extract, 25%, tan, c.l., bbls., works..lb. .03¼- —
l.c.l., bbls., works.....lb. .03¾- —
tanks, works.....lb. .02¾- —

Gasoline—Isopropyl Acetate

Hempseed, Manchur, bgs.....lb. .05½- .06
Henbane leaves,bls.....lb. .65 Nom.
Henna leaves, bls.....lb. .15 - .17
powd., bbls., bxs.....lb. .18 - .20
Heptane, mixed, 77-115°C., dms., c.l., Group 3..gal. .11 - —
l.c.l., Group 3.....gal. .16 - —
tanks, Group 3.....gal. .08¼- —
normal, 86-100°, dms., c.l., Group 3..gal. .11¼- —
l.c.l., Group 3.....gal. .17 - —
tanks, Group 3.....gal. .10¼- —
laboratory grade, dms., c.l., Group 3..gal. .14 - —
l.c.l., Group 3.....gal. .25 - —
Hexamethylenetetramine, tech., dms., 1,500 lbs. or more shipments, f.o.b. Perth Amboy or N. Y. C..lb. .32 - —
150 to 1,350 lbs., shipments, same basis..lb. .63 - —
USP, dms., 500 lbs., or more, shipments, same basis, lb. .36 - —
flb., ctns., same basis....lb. .40 - —
Hematropine hydrobromide, bots., 25 ozs.....oz.15.00 Nom.
Hoofmeal, 17-18% ammon., bulk, f.o.b. Chicago..unit-ton. 3.00 - 3.15
Hops, N. F., bls.....lb. .23 - .24
Horehound, bls.....lb. .10 - .14
Hydrangea root, bls.....lb. .08 - .09
Hydrastine, bots., 4 ozs.....oz.17.25 - —
cns., 16 ozs.....oz.17.00 - —
Hydrochloride, bots., 4 ozs..oz.17.25 - —
cns., 16 ozs.....oz.17.00 - —
Sulphate, bots., 4 ozs.....oz.19.00 - —
cns., 16 oz.....oz.18.75 - —
Hydrastinine, 15 gr., bots...bot. 3.00 - —
Hydrastis (see Golden seal).
Hydrofuramide, dms., 100 lbs. or more, works..lb. .30 - —
flb. ctns., works.....lb. .40 - —
Hydrogen peroxide, USP, bbls.lb. .03¾- .04
100 vols., cbys., E.of Miss.R.lb. .20 - —
Hydroquinone, dealers, bbls., dms..lb. .90 - .94
Hydroxycitronellal, cns.....lb 2.00 - 2.50
Hyoscine hydrobromide, bots..oz.26.00 -26.25
Hydrochloride, 5 gr., bots...bot. .75 - —
Hyoscyamine, 5 gr., bots....bot. .60 - —
Hydrobromide, 5 gr., bots..bot. .60 - —
Sulphate, 5 gr., bots.....bot. .60 - —
Hypernic, crbys., bbls.....lb. .25 - —
ext., bbls. .....lb. .13 - —

I

Iceland moss, bls.....lb. .22 - .24
Ichthyol, bots.....lb. 4.00 Nom.
Indian red (see Red, Indian).
Indigo, nat., Madras, cs.....lb. 1.63 - 1.67
synth., liq., bbls.....lb. .16½- .19
powd., bbls.....lb. .74½- .85
Indol, CP, bots.....lb.32.00 -34.00
Insect flowers (see Pyrethrum).
Iodine, crude, jars, 25 lbs.....lb. 1.30 - —
kgs., 150 lbs., less 5%.....lb. 1.21 - —
resubl., bots., 5 lbs.....lb. 2.10 - —
jars, 50 lbs.....lb. 2.00 - —
tincture, USP, bbls, 47 gals.gal. 2.00 - —
cbys., 5 gals.....gal. 1.30 - 2.10
mild, bbls., 47 gals.....gal. 1.25 - —
cbys., 5 gals.....gal. 1.30 - 1.35
Iodoform, dms., 100 lbs.....lb. 4.10 - —
jars, 5 gals.....lb. 4.20 - —
Ionone, alpha, bots.....lb. 2.50 - 2.55
alpha, extra, bots.....lb. 4.00 - 4.05
alpha beta, bots.....lb. 2.25 - 2.30
beta, bots.....lb. 4.10 - 4.15
Ipecac root, bgs.....lb. 1.30 - 1.35
powd., bxs.....lb. 1.45 - 1.50
Irish moss, ordinary, bls.....lb. .16 - .17
powd., 80-90 mesh, bbls..lb. .30 - .32
prime, bleached, bls.....lb. .28 - .30
Iron acetate, N. F. IV, cbys. 100 lbs..lb. .15 - —
djns., 50 lbs.....lb. .16 - —
liquor, bbls., c.l., dlvd.....lb. .03 - —
l.c.l., dlvd.....lb. .04 - —
Chloride (ferric), tech., anhydr., 390-lb. dms.....100 lbs. 4.65 - 5.25
150-lb. dms.....100 lbs. 5.00 - 5.60
cryst., bbls., works, frt. alld. or equald..lb. .05 - .06
kegs, works, frt. alld. or equld. lb. .07½- .08
liquor, cbys., works, frt. alld. or equld..lb. .05 - .06
USP X, cryst., bbls.....lb. .07½- —
kegs .....lb. .08½- —
USP solut., cbys., works, frt. alld. or equld..lb. .06½- .07
djns .....lb. .07½- —
USP VIII, pearls.....lb. .72 - .75
powd., cns.....lb. .84 - .87
scales, cns.....lb. .77 - .80
Glycerophosphate, bbls., kgs., 1,000 lb. lots..lb. 3.15 - —
smaller lots.....lb. 3.25 - —
cns., 25 lbs.....lb. 3.37 - —
Hypophosphite, cns.....lb. 1.55 - 1.60
Iodide, bots.....lb. 3.18 - 3.32
syrup, djns. .....lb. .39 - —
bots. .....lb. .53 - —
Nitrate, comil., kgs.....lb. .02½- .03
Oxalate, powd., kgs.....lb. .47 - —
cns. .....lb. .53 - —
scales, cns.....lb. .82 - .84
Oxide (see Black, Red, etc.).
Phosphate, ferric, pearls, cns., 50 lbs..lb. .54 - —
25 lbs.....lb. .57 - —
scales, cns., 50 lbs.....lb. .59 - —
25 lbs.....lb. .62 - —
ferrous, bbls., 200 lbs.....lb. .35 - —
bxs., 25 lbs.....lb. .40 - —
kgs., 100 lbs.....lb. .37 - —
Pyrophosphate, pearls, cns..lb. .59 - .62
scales, cns.....lb. .64 - .67
Reduced, 90%, cs.....lb. .60 - .65
Sulphate, tech. (see Copperas and ferric sulphate).
Sulphate, USP, cryst., bbls., 275 lbs..lb. .04¼- —
dms., 100 lbs.....lb. .06¼- —
Iron-ammonia citrate, brown, gran., cns..lb. .35 - .38
pearls, cns.....lb. .35 - .38
scales, cns.....lb. .47 - .50
green, gran., cns.....lb. .35 - .38
pearls, cns.....lb. .35 - .38
scales, cns.....lb. .47 - .50
Iron-ammonia oxalate, bxs.....lb. .30 - —
flb., dms.....lb. .32½- —
kgs. .....lb. .25½- —
Iron-potash oxalate, bbls.....lb. .42 - —
kgs. .....lb. .44 - —
jars .....lb. .48 - —
Iron-soda oxalate, bxs.....lb. .30 - —
flb., dms.....lb. .28½- —
kgs. .....lb. .26½- —
Isobutyl carbinol (see Carbinol).
Isopentane, dms., works.....lb. .48 - —
small lots, works.....lb. .50 - —
Isopropanol (see Alcohol, isopropyl)
Isopropyl acetate, dms., 5 gals., E. of Rockies, frt. alld..lb. .105 - —
W. of Rockies, frt. alld..lb. .109 - —
55 gals., c.l., E. of Rockies, frt. alld..lb. .07 - —
W. of Rockies, frt. alld, lb. .074 - —

Isopropyl Acet.—Methyl Aceto.

Isopropyl acetate, dms., 55 gals., l.c.l., E. of Rockies, frt. alld..lb. .075 - —
W. of Rockies, frt. alld, lb. .079 - —
tanks, E. of Rockies, frt. alld..lb. .06 - —
W. of Rockies, frt. alld..lb. .064 - —
Alcohol (see Alcohol).
Ether, dms., 5 gal., frt. alld., gal. .55 - —
55 gal., c.l., E. of Miss., frt. alld..gal. .35 - —
W. of Miss., frt. alld., gal. .39 - —
l.c.l., E. of Miss., frt. alld., gal. .44 - —
tanks, E. of Miss., frt. alld., gal. .25 - —
W. of Miss., frt. alld., gal. .29 - —

J

Jaborandi leaves, bls.....lb. .11 - .13
Jalap root, NF, bls.....lb. .24 - .26
powd., bbls., bxs.....lb. .28 - .30
resin., lump, cns.....lb. 3.70 - —
powd., bxs.....lb. 3.75 - —
Juniper berries, bgs.....lb. .08½- .10

K

Kamala, tins.....lb. .48 - .50
Kaolin (see China clay).
Kava kava root, bls.....lb. .14 - .16
Kerosene, at refinery:—
Bayonne, 41-43 w.w., tanks, gal. .04⅝- .05⅛
Gulf ports, p.w., bulk....gal. .03⅝- .03⅝
w.w., bulk..gal. .03⅛- —
Louisiana - Arkansas, 41-43 w.w., bulk..gal. .04 - .04⅛
Oklahoma-Texas, 41-43 w.w., tanks..gal. .03⅝- .04¼
43-44 w.w., tanks.....gal. .04 - .04⅛
Pennsylvania, 45 w.w., tanks gal. .04⅝- .04⅞
46 w.w., tanks.....gal. .04⅝- .05
47 w.w., tanks.....gal. .04⅞- .05⅛
Kerosene, tankwagon:—
Atlanta .....gal. .12 - —
Boston .....gal. .08¼- —
Chicago .....gal. .10 - —
Cincinnati .....gal. .13 - —
Denver .....gal. .11½- —
Louisville .....gal. .10 - —
Minneapolis .....gal. .104 - —
New Orleans .....gal. .11 - —
New York .....gal. .09 - —
San Francisco .....gal. .11½- —
Kerosene distillate (see Oil, furnace).
Kieserite, calc., 90-98% $MgSO_4$ bgs., c.l., ex vessel Atlantic, Gulf ports, duty pd..ton. No prices
Kola nuts, bgs.....lb. .12 - .13

L

Lady slipper root, bls.....lb. .36 - .37
Lanolin (see Adeps lanae).
Lard, city, tubs.....100 lbs. 7.25 - 7.50
Middlewestern, trcs....100 lbs. 6.80 - 6.90
Neutral, trcs.....100 lbs. 8.00 - 8.25
Western, choice, trcs..100 lbs. 6.85 - 6.95
Compound, trcs.....100 lbs. 9.50 - 9.75
Larkspur seed, bgs.....lb. .75 - .85
Laurel berries, bls.....lb. .25 - .26
Leaves, Greek, bls.....lb. .06⅝- .07¼
Lavender flowers, ordinary, bls. lb. 1.10 Nom.
medium, bls.....lb. 1.35 Nom.
select, bls.....lb. 1.50 Nom.
Lead acetate, white, broken, bbls..lb. .11 - —
cryst., bbls.....lb. .11 - —
gran., bbls.....lb. .11¾- —
powd., bbls.....lb. .11¾- —
Arsenate, bgs., c.l., dealers..lb. .10 - .11
l.c.l., bgs., dealers.....lb. .10½- .11½
Lead arsenate prices are works or whse basis. frt. alld. to dest. in lots of 96 lbs. or over; no frt. or truck allowance for works or whse. pick ups.
Blue, basic sulphate, bbls., c.l., dlvd. E...lb. .06¼- —
dlvd., Ariz., Cal., Col., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo. .....lb. .06½- —
l.c.l., dlvd. E.....lb. .06¾- —
l.c.l., dlvd. Ariz., Cal., Col., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo.....lb. .07 - —
Carbonate (see Lead, white).
Chloride, pure, bots., 5 lbs..lb. .62 - —
fib., dms., 25 lbs.....lb. .40 - —
Iodide, N. F., v., powd., bots., 5 lbs..lb. 2.66 - —
jars .....lb. 2.55 - —
Linoleate, pale, precip., dms., lb. .19 - —
Metal (see daily quotations in market report).
Metallic, paste, 200-lb. cont., f.o.b. works..lb. .19 - —
5-lb. cont., f.o.b. works....lb. .22 - —
Nitrate, bbls. .....lb. .11 - .14
Oleate, bbls. .....lb. .18½- .20
Peroxide, cns., works.....lb. .46 - .47
Red, dry, 95% or less, Pb_3O_4, bbls., c.l. (20 tons), dlvd., Ala., Ariz., Ark., Colo., Fla., Ga., Idaho, La., Miss., Mont., Nev., N. Mex., Okla., Tex., Utah, Wyo., and E. of Cascade Mts. in Ore. and Wash...lb. .0835- —
other points .....lb. .0810- —
Ark., Cal., Fla., Ga., La., Miss., Okla., Tex., and W. of Cascade Mts. in Ore. and Wash..lb. .08½- —
Ariz., Idaho, Nev., Utah and E. of Cascade Mts. in Ore. and Wash..lb. .09¼- —
Colo., Mont., N. Mex., Wyo..lb. .09 - —
other points.....lb. .08½- —
smaller lots, etc.....lb. .09¼- —
Ariz., etc.....lb. .09¾- —
Colo., etc.....lb. .09½- —
other points.....lb. .09 - —
97%, Pb_3O_4, bbls., c.l. (20 tons), dlvd., Ala., etc., lb. .0880- —
other points.....lb. .0885- —
l.c.l., 5 tons, dlvd., Ala., etc..lb. .09 - —
Ariz., etc.....lb. .09¼- —
Colo., etc.....lb. .09½- —
other points.....lb. .08¾- —
smaller lots, dlvd., Ala., etc..lb. .09¼- —
Ariz., etc.....lb. .10 - —
Colo., etc.....lb. .09¾- —
other points.....lb. .09¼- —
Lead, dry, 98%, Pb_3O_4, bbls., c.l. (20 tons), dlvd., Ala., etc..lb. .0895- —
other points.....lb. .0860- —
l.c.l., 5 tons, dlvd., Ala., etc..lb. .09¼- —
Ariz., etc.....lb. .09¾- —
Colo., etc.....lb. .09½- —
other points.....lb. .09 - —
smaller lots, dlvd., Ala., etc..lb. .09¾- —
Ariz., etc.....lb. .10¼- —
Colo., etc.....lb. .10 - —
other points.....lb. .09½- —
in oil, 95% min., 100-lb. kgs., lb. .12¼- —
Resinate, fused 15%, bbls....lb. .09½- —
pale, bbls.....lb. .11½- —
precip., bbls.....lb. .16½- —
Stearate, bbls.....lb. .26 - —
Sulphate (see Lead, white, basic sulphate).
Titanate, bbls., c.l. (20 tons), works, frt. alld..lb. .10 - —
l.c.l., 5 tons, one delvy., E. frt. alld..lb. .10¼- —
Pac. Cst., ex whse....lb. .10¼- —
smaller lots, E. frt. alld. lb. .10½- —
Pac. Cst., ex whse ...lb. .10½- —
White, dry, basic carbonate, bbls., c.l., dlvd. Ariz., Cal., Colo., Idaho, Mont., Nev., N. Mex., Ore., Utah, Wash. and Wyo..lb. .07¼- —
other points.....lb. .07 - —
l.c.l., dlvd., Ariz., etc..lb. .07¼- —
other points.....lb. .07¼- —
basic sulphate, bbls., c.l., dlvd., Ariz., etc..lb. .06½- —
other points.....lb. .06¾- —
basic sulphate, l.c.l., dlvd., Ariz., etc..lb. .06¾- —
other points.....lb. .06¼- —
in oil, 100-lb. kgs., consumers, lb. .12¾- —
dealers .....lb. .10¾- —
painters .....lb. .11¼- —
Consumers' price and painters' price are ½c. lower on orders of 500 lbs. or more.
Lecithin, 100%, cns., f.o.b., N. Y., or Chi.....lb. 2.50 - —
edible, grade 1, dms., c.l., same basis..lb. .45 - —
l.c.l., same basis.....lb. .47½- .65
grades 2 or 3, dms., c.l., same basis..lb. .47½- —
l.c.l., same basis.....lb. .50 - .67½
grade 4, dms., c.l., same basis..lb. .50 - —
l.c.l., same basis.....lb. .52½- .70
purified, cs., dms., c.l., same basis..lb. .65 - —
l.c.l., same basis.....lb. .67½- .85
tech., grade 1, dms., c.l., same basis..lb. .25 - —
l.c.l., same basis.....lb. .37½- .55
grades 2 or 3, dms., c.l., same basis..lb. .37½- —
l.c.l., same basis.....lb. .40 - .57½
grade 4, dms., c.l., same basis. lb. .40 - —
l.c.l., same basis.....lb. .42½- .60
Lecithin prices quoted above are for goods packed in 25, 50, or 100-lb. dms. When goods are packed in 500-lb. dms. prices are 1c. per lb less.
Lemon peel, bls.....lb. .15 - .17
Licorice extract, mass, cs.....lb. .18 - .19
powd., bbls.....lb. .24 - .25
root, cuttings, bls.....lb. .08 - .10
powd., bbls., bxs.....lb. .11 - .14
select, bndls., cs.....lb. .20 - .25
Lime, chemical (quicklime), lump or pebble, bulk, f.o.b. Bellefonte, Pa.....ton. 7.00 - —
Berkley, W. Va.....ton. 7.00 - —
Carey, Ohio.....ton. 7.00 - —
Cedar Hollow, Pa....ton. 8.50 - —
Crab Orchard, Tenn.ton. 6.25 - —
Eagle Mountain, Va.ton. 7.00 - —
Farnams, Mass.....ton. 8.00 - —
Gibsonburg, Ohio.....ton. 7.00 - —
Hannibal, Mo.....ton. 6.50 - —
Keystone, Ala.....ton. 6.25 - —
Knoxville, Tenn.....ton. 6.25 - —
Limedale, Ark.....ton. 7.00 - —
Longview, Ala.....ton. 6.25 - —
Manistique, Mich....ton. 8.00 - —
Marblehead, Ohio....ton. 7.50 - —
Martinsburg, W. Va..ton. 7.00 - —
Menominee, Mich....ton. 8.00 - —
Mitchell, Ind.....ton. 6.50 - —
Newala, Ala.....ton. 6.25 - —
Rincon, Cal.....ton.13.00 - —
Ripplemead, Va.....ton. 7.00 - —
Riverton, Va.....ton. 7.00 - —
San Francisco, Cal..ton.13.00 - —
Scioto, Ohio.....ton. 6.50 - —
Springfield, Mo.....ton. 7.00 - —
Woodville, Ohio.....ton. 7.00 - —
York, Pa.....ton. 7.00 - —
hydrated, paper bags, f.o.b. Bellefonte, Pa..ton. 8.50 - —
Berkley, W. Va....ton. 8.50 - —
Buffalo, N. Y.....ton.10.00 - —
Carey, Ohio.....ton. 8.50 - —
Cedar Hollow, Pa....ton. 8.50 - —
Crab Orchard, Tenn.ton. 9.00 - —
Eagle Mountain, Va.ton. 9.00 - —
Farnams, Mass.....ton. 8.50 - —
Gibsonburg, Ohio....ton. 8.50 - —
Hannibal, Mo.....ton. 8.50 - —
Keystone, Ala.....ton. 9.00 - —
Knoxville, Tenn.....ton. 9.00 - —
Le Roy, Minn.....ton.10.00 - —
Lime Crest, N. J....ton. 8.50 - —
Limedale, Ark.....ton. 9.00 - —
Longview, Ala.....ton. 9.00 - —
Louisville, Ky.....ton.14.50 - —
Manistique, Mich....ton. 9.50 - —
Marblehead, Ohio....ton. 9.50 - —
Martinsburg, W. Va..ton. 8.50 - —
Mitchell, Ind.....ton. 9.00 - —
Newala, Ala.....ton. 9.00 - —
Potoskey, Mich....ton. 9.00 - —
Port Island, Mich....ton. 9.00 - —
Rapid City, S. D....ton.12.00 - —
Ripplemead, Va.....ton. 9.00 - —
San Francisco, Cal..ton.16.00 - —
Springfield, Mo.....ton. 9.00 - —
Woodville, Ohio.....ton. 8.50 - —
York, Pa.....ton. 8.50 - —
spray, paper bags, f.o.b. Bellefonte, Pa..ton. 9.00 - —
Carey, Ohio.....ton.11.00 - —
Farnams, Mass.....ton. 9.50 - —
Gibsonburg, Ohio....ton.11.00 - —
Lime Crest, N. J....ton. 8.50 - —
Marblehead, Ohio....ton.11.00 - —
Scioto, Ohio.....ton.10.00 - —
Woodville, Ohio.....ton.11.00 - —
York, Pa.....ton. 9.00 - —
Lime salts (see Calcium).
Lime-sulphur, dry, dealers, bgs., c.l., E. of and incl. N. Dak., S. Dak., Neb., Kan., Okla., Tex..lb. .07½- .08½
dms., same basis.....lb. .10½- —
400 lbs. or more, bgs., same basis..lb. .07¾- .08¾
dms, same basis.....lb. .11 - —
less than 400 lbs., same basis, lb. .08½- .09½
dms., same basis.....lb. .12 - —
solution, zone 1, dms., consumer gal. .16 - —
Zone 2, tanks, dealers, wks., gal. .08½- —
30-50 dms.....gal. .11 - .15
Lime-sulphur, solut., Zone 3, tanks, dealers, dlvd..gal. .11½- —
30-50 dms.....gal. .14 - .18
Zone 4, tanks, dealers, wks., gal. .08 - —
dms., wks., except Cal..gal. .12 - —
Zone 5, tanks, dealers, dlvd., gal. .10¼- —
dms.....gal. .12 - —
Zone 6, tanks, dealers..gal. .08½- —
30-50 dms.....gal. .11 - .15
Prices for lime sulphur solution are f.o.b. warehouse points, freight allowed. Zone 1 includes Ga., S. C., Ala., N. C., except the counties of Ashe, Surry, Stokes, Rockingham and Alleghany; Tenn., east of Tenn. River. Zone 2: New England States. Zone 3: Ark., Ohio, Ind., Ill., Ia., Ky., Mich., Wis., Minn., Mo., and Tenn., west of Tenn. River; Penn. eastern tier, and W. Va. western tier. Zone 4: West of Rocky Mountains, except southern California, which makes up Zone 5. Zone 6: N.Y. east of Herkimer, N. J., Md., Del., Va., Pa.—all counties lying east of the western boundary of Bedford, Blair, Center, Clinton and Potter, W. Va.—counties of Mineral, Hampshire, Morgan, Berkeley, Jefferson, and Hardy, N. C—counties of Ashe, Alleghany, Surry, Stokes, and Rockingham.
Linalool. cns.....lb. 2.10 - 2.30
Linalyl acetate, cns.....lb. 2.50 - 2.75
Linden flowers, with leaves, bls.lb. .35 - .40
without leaves, bls.....lb. .35 - .50
Linseed cake, bags, export...ton.31.00 -31.50
Meal, 34%, bags.....ton.33.00 - —
Litharge, com'l, powd., bbls., 20-tons dlvd. Ala., Ariz., Ark., Colo., Fla., Ga., Idaho, La., Miss., Mont., Nev., N. Mex., Okla., Tex., Utah, Wyo., and E. of Cascade Mts. in Ore. and Wash..lb. .0735- —
dlvd., other points....lb. .0710- —
5 tons, dlvd., Ala., Ark., Cal., Fla., Ga., La., Miss., Okla., Tex. and W. of Cascade Mts. in Ore. and Wash.....lb. .07½- —
Ariz., Idaho, Nev., Utah and E. of Cascade Mts. in Ore. and Wash...lb. .08 - —
Colo., Mont., N. Mex., Wyo..lb. .07¼- —
other points.....lb. .07¼- —
smaller lots, dlvd., Ala., etc. lb. .08 - —
Ariz., etc.....lb. .08¼- —
Colo., etc.....lb. .08¾- —
other points.....lb. .07¾- —
Lithium bromide, bbls., 100 lbs., works, frt. equal'd..lb. 1.90 - —
50 lbs., works.....lb. 1.92 - —
25 lbs., works.....lb. 1.95 - —
Carbonate, 250-lb., bbls.....lb. 1.25 - —
100-lb. kgs.....lb. 1.30 - —
Chloride, 25-lb. jars.....lb. 1.65 - 1.70
Citrate, 250-lb. bbls.....lb. 1.40 - —
25-lb. dms.....lb. 1.45 - —
100-lb. kgs.....lb. 1.40 - —
Fluoride, bbls. .....lb. 2.10 - 2.25
Iodide, 5-lb. bots.....lb. 4.85 - —
25-lb. jars.....lb. 4.70 - —
Lithopone, dom., high-strength, bgs., c.l. (20 tons)..lb. .06¼- —
smaller lots .....lb. .06¼- —
bbls., c.l. (20 tons).....lb. .06½- —
smaller lots .....lb. .06¾- —
ordinary, bgs., c.l., (20 tons) lb. .06¼- —
smaller lots .....lb. .04 - —
bbls., c.l., (20 tons).....lb. .04 - —
smaller lots .....lb. .04¼- —
titanated, bgs., c.l. (20 tons) lb. .06¼- —
smaller lots .....lb. .06¼- —
bbls., c.l. (20 tons)....lb. .06¼- —
smaller lots .....lb. .06¾- —
Lithopone in car lots is delivered East or the Pacific Coast and in less than car lot quantities delivered East or ex warehouse Pacific Coast.
Liverwort leaves, bls.....lb. .40 - .45
Lobelia, herb, bls.....lb. .12 - .13
Seed, bgs. .....lb. .35 - .36
Logwood extract, cryst., bbls..lb. .18 - .22
liquid, 51°, bbls.....lb. .09½- .11½
solid, bxs. .....lb. .15 - .19
Lovage root, dom., bls.....lb. .55 - .56
import, bls.....lb. .45 - .60
Lupulin, N. E., tins.....lb. 1.35 - 1.40
Lycopodium, cs.....lb. 4.00 Nom.

M

Mace, Banda, cs.....lb. .60 - .65
Batavia, cs.....lb. .34 - .35
Siauw, cs.....lb. .49 - .50
Madder, Dutch, bbls.....lb. .22 - .26
Magnesia, arsenate, dms.....lb. .18 - .20
Calcined, tech., USP, bbls., works..lb. .26 - —
Carbonate, tech., Zone 1, bgs., c.l..lb. .06¼- —
l.c.l. .....lb. .07 - —
1, bbls., c.l.....lb. .07½- —
l.c.l. .....lb. .08 - —
kgs., c.l.....lb. .08¾- —
l.c.l. .....lb. .09¼- —
USP, zone 1, bbls., c.l.....lb. .08¼- —
l.c.l. .....lb. .09 - —
kgs., c.l. .....lb. .09¾- —
l.c.l. .....lb. .10½- —
Magnesia:—Zone 1—Mass., Conn., R. I., N. Y., N. J., Pa., Del. and Md. C.l., shipments, full frt. alld. up to, but not exceeding 25c. per 100 lbs., actually paid by customers. On l.c.l. shipm'ts, frt. alld., including dlvd. storedoor. Magnesia prices are f.o.b., Plymouth Meeting House. Zone 2, balance of U. S.; prices f.o.b., Plymouth Meeting, Ambler, Phillipsburg, Valley Forge, and New York.
Chloride, anhy., dom., bbls., dlvd..lb. .13 - —
flake, dom., bbls., wks., c.l., ton.32.00 - —
l.c.l., bbls., wks.....ton.39.00 -42.00
Hypophosphite, cns.....100 lbs. 1.45 - —
25 lbs. .....lb. 1.50 - —
Oxide (see Calcined).
Palmitate, bbls.....lb. .33 Nom.
Peroxide, 15%, dms., works.lb. 1.00 - 1.35
Silicate (see Talc).
Silicofluoride, bbls.....lb. .11 - .11½
Stearate, bbls., ctns., c.l.....lb. .21 - —
1 ton .....lb. .22 - —
1,000-2,000 lbs. .....lb. .23 - —
smaller lots .....lb. .24 - —
Sulphate (see Epsom salt).
Magnesite, cal., dom., bgs....ton.58.00 -60.00
Import, bgs., duty paid...ton.65.00 -70.00
dead-burned, dom., bulk, c.l., f.o.b. Chewelah, Wash.....ton.25.00 - —
Magnesium hydroxide, medicinal, bbls., 200 lbs..lb. .25 - —
dms., 25 lbs.....lb. .30 - —
kgs., 100 lbs.....lb. .26 - —
Trisilicate, cs., 500-lb. lots..lb. .58 - —
100-lb. lots .....lb. .65 - —
cns. .....lb. .75 - .80
Malva flowers, black, bls.....lb. .45 - .50
blue, bls.....lb. .45 - .50
Leaves, bls.....lb. .19 - .20
Manaca root, bls.....lb. .23 - .24
Mandrake root, bls.....lb. .11 - .12
Manganese, acetate, dms.....lb. .26½- —
Arsenate, bgs. .....lb. .12 - .12½
Borate, tech., bbls.....lb. .15 - .16
Carbonate, bbls. .....lb. .19 - —
Chloride, bbls. .....lb. .08½ Nom.
Manganese, dioxide, African, battery, 84-87%, bgs., 28-40 tons, works..ton.64.50 - —
5-15 tons, works.....ton.67.50 - —
½-4 tons, works....ton.72.50 - —
300-600 lbs., works.ton.92.50 - —
Caucasian, 85-90%, bbls., c.l., works..ton.61.50 - —
l.c.l., 5 tons, works...ton.64.50 - —
smaller lots, works...ton.69.50 - —
burlap bgs., c.l., works.ton.59.25 - —
l.c.l., 5 tons, works..ton.62.25 - —
smaller lots, works.ton.67.25 - —
paper bgs., c.l., works.ton.57.50 - —
l.c.l., 5 tons, works..ton.60.50 - —
Glycerophosphate, bbls., kgs., 1,000-lb. lots..lb. 2.30 - —
smaller lots.....lb. 3.00 - —
cns., 25 lbs.....lb. 3.12 - —
Hydrate, bbls., dlvd.....lb. .82 - —
Iodide, bots., 5 lbs.....lb. 5.55 - —
jars, 25 lbs.....lb. 5.70 - —
Linoleate, liquid, 4%, dms...lb. .18 - .19½
solid, precip., 8.2%, bbls...lb. .19 - —
Ore, Cuban, 51-52%, basis Atl. ports..unit-ton. .50 - —
Resinate, fused, 8½%, bbls..lb. .08¼- .08½
precip., dms .....lb. .12 - —
Sulphate, anhyd., ton lots, works..lb. .08 - .08½
single dms., works.....lb. .08¼- .08⅝
cryst., 65%, $MnSO_4$, bgs., c.l., dlvd., South..ton.48.75 - —
l.c.l., bgs.....ton.55.75 - —
80-85%, bgs., c.l., works, frt. alld. to S.F.A. territory, unit-ton. .75 - —
l.c.l., 5 tons, works...lb. .03¼- —
smaller lots, works..lb. .04 - —
Mangrove bark, bgs., shipt...ton. No prices
Manna flake, large, cs.....lb. .60 - .65
small, cs.....lb. .55 - .60
Mannitol, com'l grade, 99% pure, ton lots, works..lb. .42 - —
250 lbs., bbls., works.....lb. .50 - —
reagent grade, 25-lb. tins, 100-lb. lots, works..lb. .95 - —
50-lb. lots, works.....lb. 1.00 - —
Marble flour, bgs.....ton.12.00 -14.00
Marjoram, French, bls.....lb. .36 - .37
Tunisan, bls.....lb. .33 Nom.
Chilean, bls.....lb. .27 - .29
Matico leaves, bls.....lb. .30 - .35
Menthol, USP, natural, cs.....lb. 3.30 - 3.40
synthetic, tech., cs.....lb. 2.50 - —
USP, cs.....lb. 3.25 - —
liquid, dms., 50 lbs.....lb. 1.50 - —
Menthyl salicylate, tins, 100-lb. lots..lb. 3.00 - —
25-lb. lots.....lb. 3.10 - —
Mercurial ointment, 30%, pails, 50 lbs.....lb. 1.24 - —
25 lbs.....lb. 1.26 - —
50%, pails, 50 lbs.....lb. 1.79 - —
25 lbs.....lb. 1.81 - —
Mercury (see Quicksilver).
Ammoniated (see white precipitate).
Bichloride (see Corrosive sublimate).
Bisulphate, bots., 5 lbs.....lb. 2.62 - 2.64
fib., dms., 100 lbs.....lb. 2.49 - —
jars, 25 lbs.....lb. 2.51 - —
Chloride (see Calomel).
Iodide, red, N.F., bots., 5 lbs. lb. 4.41 - 4.45
cns., 25 lbs.....lb. 4.30 - 4.35
fib., dms., 100 lbs.....lb. 4.30 - 4.35
yellow, bots., 5 lbs.....lb. 4.51 - 4.55
cns., 25 lbs.....lb. 4.40 - —
fib., dms., 100 lbs.....lb. 4.40 - —
Nitrate ointment (see Citrine ointment).
Oxide, red, N.F. (see Red precipitate).
tech. (See Red, mercury oxide).
yellow, dom., tech., bbls...lb. 2.26 - —
USP, fib. dms., 50 lbs. or more..lb. 2.78 - —
Mercury and chalk, ctns., 5 lbs., lb. 1.72 - —
fib., dms., 25 lbs.....lb. 1.60 - 1.65
Mesityl oxide, cns., works.....lb. .16 - .18
dms., c.l., dlvd.....lb. .11¾- —
l.c.l., dlvd.....lb. .12 - —
tanks, dlvd.....lb. .10¾- —
Metal leaf, pkgs., of 20 books (500 leaves), aluminum, 5½x5½ in..pkg. 1.50 - 1.75
composition, 5½x5½ in..pkg. 1.70 - 1.80
gold, XX deep, 23K, 3⅜x3⅜ in..pkg.15.25 -15.75
23K, 3⅜x3⅜ in.....pkg.16.15 -17.50
4x4 in.....pkg.19.50 -20.00
3⅝x5⅞ in.....pkg.22.50 -23.00
3⅝x5⅞ in.....pkg.24.50 -25.00
Silver, 3⅜x3⅜ in.....pkg. 2.75 - 2.85
Metanitroparatoluidin, bbls....lb. 1.80 - —
Metaphenylenediamine, kgs....lb. .65 - —
Metatoluylenediamine, kgs.....lb. .85 - —
Methanol, natural, denat., grade, tanks..gal. .40 - —
97%, tanks.....gal. .53 - —
95%, tanks.....gal. .51 - —
Methanol in drums, car lots, is 5c. per gal. higher, frt. alld., east of the Rocky Mts. Prices on the Pacific Coast are 3c. higher on tanks and 4c. per gal. higher on drums. car lots.
synth., pure, dms., c.l., Zone 1, frt. alld..gal. .38 - —
2, frt. alld.....gal. .41 - —
3, frt. alld.....gal. .42 - —
4, frt. alld.....gal. .44 - —
l.c.l., Zone 1, frt. alld. or dlvd..gal. .40½- —
2, frt. alld. or dlvd., gal. .47 - —
3, frt. alld. or dlvd..gal. .44½- —
4, frt. alld. or dlvd..gal. .60 - —
tanks, Zone 1, frt. alld..gal. .33 - —
2, frt. alld.....gal. .35½- —
3, frt. alld.....gal. .36½- —
4, frt. alld.....gal. .37 - —
Synthetic methanol sales zones are:—Zone 1, Conn., Del., D. C., Ill., Ind., Iowa, Ky., Me., Md., Mass., Mich., Minn., Mo., N. H., N. J., N. Y., N. C., Ohio, Penn., R. I., Tenn., Vt., Va., W. Va., Wis.; Zone 2, Ala., Ark., Col., Fla., Ga., Kans., La., Miss., Neb., N. D., Okla., S. C., S. D., Tex., Wyo.; Zone 3, Los Angeles, Cal., San Francisco, Cal., Portland, Ore., and Seattle, Wash.; Zone 4, Ariz., Cal., N. Mex., Mont., Nev., Idaho, Ore., Utah, Wash.
Methyl acetate, 97-99%, dms., c.l., E. of Miss. R..lb. .10¾- —
W. of Miss. R.....lb. .11¼- —
l.c.l., dms., dlvd. E. of Miss. R..lb. .11 - —
W. of Miss. R.....lb. .13 - —
tanks, dlvd., E. of Miss. R. lb. .09¾- —
W. of Miss R.....lb. .10¼- —
tech., dms., c.l., dlvd., E. of Miss. R..lb. .07 - —
W. of Miss. R.....lb. .08 - —
l.c.l., dlvd. E. of Miss. R..lb. .07¼- —
W. of Miss R. ....lb. .08¼- —
tanks, dlvd. E. of Miss. R., lb. .09 - —
W of Miss R. .....lb. .07 - —
Acetoacetate, dms., c.l., works, frt. all..lb. .30½- —

Methyl acetone, natural, dms., c.l. gal. .41 - —
l.c.l. gal. .44 - —
tanks gal. .35 - —

Methyl acetone in drums, car lots, is 5c. per gal. higher, frt. alld., east of Rocky Mts. Prices on Pacific Coast are 3c. per gal. higher on tanks and 4c. per gal. higher on drums, car lots.

synthetic, dms., c.l., Zone 1, frt. alld. E. of Rockies, gal. .28 - —
2, frt. alld. E. of Rockies, gal. .41 - —
3, Pacific Coast gal. .42- —
4 gal. .44 - —
l.c.l., Zone 1, frt. alld. E. of Rockies gal. .41 - —
2, frt. alld. E. of Rockies gal. .475 - —
3, Pacific Coast gal. .45 - —
4, gal. .505 - —
tanks, Zone 1, frt. alld., E. of Rockies gal. .515 - —
2, frt. alld. E. of Rockies, gal. .34 - —
3, Pacific Coast gal. .35 - —
4, gal. .355 - —

Methyl acetone, synthetic, sales zones are:—Zone 1, Conn., Dela., D. C., Ill., Ind., Iowa, Ky., Me., Md., Mass., Mich., Minn., Mo., N. H., N. J., N. Y., N. C., Ohio, Pa., R. I., Tenn., Vt., Va., West Va. and Wis.; Zone 2, Ala., Ark., Col., Fla., Ga., Kans., La., Miss., Neb., N. D., Okla., S. C. and S. D.; Zone 3, Pacific Coast; Zone 4, Ariz., Col., Mont., Nev., Idaho, Ore., Utah, Wash., N. Mex.

Alcohol (see Methanol).
Anthranilate, bots. lb. 2.10 - 2.50
Benzoate, cns., 25 lbs. lb. .70 - 1.30
Bromide, cyl. lb. .65 - .75
Chloride, refrigeration, 500 lbs., and up, machine mfrs. and jobbers, cylinders lb. .32 - —
service men and consumers, cyl. lb. .36 - —
60 to 499 lbs., cyl., mach. mfrs. and jobbers lb. .36 - —
service men and consumers, cyl. lb. .40 - —
tanks, multi-unit, mach. mfrs. and jobbers lb. .31 - —
service men and consumers, lb. .33 - —

Methyl chloride quotations are spot or contract, effective July 1, for delivery to any common carrier point in United States. Prices above are in 60, 90 and 130-lb. cylinders. Prices on the 30-lb. cylinders are uniformly 10c. per pound higher than above prices.

Cinnamate, bls. lb. 1.85 - 2.00
Formate, dms. lb. .35 - .36
Lactate, dms., l.c.l., divd. lb. .30 -
Iodide, bots. lb. 3.68 - 3.82
Salicylate, dms. lb. .35 - .37—
cns. lb. .37 - .40
Violet toner, bbls. lb. .38 - —
permanent, bbls. lb. .80 - —
Methylamyl ketone, dms., works, l.c.l. lb. .23 - —
smaller containers, same basis, lb. .28 - —
Methyl cellulose, dms., 100 lbs. or more, frt. alld. lb. .70 - —
less than 100 lbs., works lb. .75 - —
Metnylcyclohexane, 98-100%, dms., works, frt. alld., E. of Rockies lb. .28 - —
Melhylcyclohexanol, 98-100%, dms., works, frt. alld., E. of Rockies lb. .30 - —

Methylcyclohexanone, 98 - 100%, dms., works, frt. alld., E. of Rockies lb. .58 - —
Methylene blue, medcl., kgs., 100 lbs. lb. 2.00 - —
cns., 5 lbs. lb. 2.35 - —
Chloride, dms., f.o.b. works lb. .18 - .22
Methylethyl ketone, dms., c.l., frt., pd., E. of Rocky Mts. lb. .06 - —
l.c.l., same terms lb. .06½ - —
tanks, same terms lb. .05 - —
Methylheptenone, bots. lb. 2.45 - 3.00
Methylneptin carbonate, bots. lb. 28.00 - 44.00
Methylhexyl ketone, dms., tech., wks. lb. .60 - —
Methylisobutyl ketone, dms., 55-gal., c.l., works gal. .76 - —
l.c.l., works gal. .80 - —
smaller containers, works gal. 1.00 - —
tanks, works gal. .70 - —
Methylnaphthyl ketone, dom., cryst., bots. lb. 3.25 - 3.30
imp. bots. lb. 3.10 - —
Methylpropyl ketone, dms., c.l. lb. .20½ - —
l.c.l. lb. .21 - —
tanks lb. .19½ - —
Metronite pigment, 120 mesh, containers extra, c.l., f.o.b. Milwaukee ton. 9.00 - —
l.c.l., same basis ton. 11.00 - —
180 mesh, containers extra, c.l., same basis ton. 11.00 - —
l.c.l., same basis ton. 13.00 - —
250 mesh, containers extra, c.l., same basis ton. 18.00 - —
l.c.l., same basis ton. 15.00 - —
325 mesh, containers extra, c.l., same basis ton. 18.00 - —
l.c.l., same basis ton. 20.00 - —
Mica, dry grd., amber, No. 1 quality, bgs., extra and returnable, c.l., works ton. 30.00 - —
l.c.l., 5,000 lbs., works, ton. 40.00 - —
1,000 lbs., works lb. .02 - —
500 lbs., works lb. .02½ - —
100 lbs., works lb. .03 - —
roofing, bags., extra and returnable, c.l., works ton. 20.00 - —
l.c.l., 5,000 lbs., works, ton. 29.00 - —
paint, bgs., extra and returnable, c.l., works ton. 55.00 - —
l.c.l., 5,000 lbs., works, ton. 65.00 - —
white, No. 1, quality, bgs., extra and returnable, c.l., works ton. 35.00 - —
l.c.l., 5,000 lbs., works, ton. 45.00 - —
1,000 lbs., works lb. .02½ - —
500 lbs., works lb. .03 - —
roofing, bgs., extra and returnable, c.l., works ton. 20.00 - —
l.c.l., 5,000 lbs., works, ton. 30.00 - —
paint, bgs., extra and returnable, c.l., works ton. 60.00 - —
l.c.l., 5,000 lbs., works, ton. 70.00 - —
wet-ground, paint or lacquer, bgs., c.l., frt. alld. E. lb. .04¼ - —
l.c.l., ex-whse., or frt. alld., E. lb. .04¾ - —
paper, wall or coated, bgs., c.l., frt. alld. E. lb. .04½ - —
l.c.l., ex-whse., or frt. alld., E. lb. .04¾ - —
rubber, bgs., c.l., frt. alld. E. lb. .04 - —
l.c.l., ex-whse., or frt. alld., E. lb. .04½ - —

wet-ground mica prices are ¼c. per pound higher west of Rockies.

Milk powder, skimmed, roller, bbls., c.l. lb. .07 - —
l.c.l. lb. .08 - —
spray, bbls., c.l. lb. .07½ - —
l.c.l. lb. .08½ - —
unskimmed, roller, bbls., c.l., lb. .15½ - —
l.c.l. lb. .16½ - —
spray, bbls., c.l. lb. .16 - —
l.c.l. lb. .17 - —
Millet seed, yellow, bgs. lb. .03¾ - .04¼
early fortune, bgs. lb. .03 - .03½
hulled, bgs. lb. .06¼ - .06¾
Mineral spirits (see Petroleum thinner and V M & P naphtha).
Molasses, blackstrap, tanks, f.o.b., No. Atlantic ports gal. .05½ - .06
f.o.b. New Orleans gal. .04½ - .05
Molybdate orange (see Orange, molybdate).
Molybdenum metal, kgs., 99% powd. lb. 2.60 - 3.00
Monoamylamine, dms., c.l., wks., lb. .52 - —
l.c.l., works lb. .53 - .55
tanks lb. .50 - —
Monobutylamine, dms., c.l., works lb. .50 - —
l.c.l., works lb. .51 - .53
tanks works lb. .48 - —
Monochlorobenzene, dms., l.c.l., lb. .06 - .08
Monoethanolamine, dms., c.l., works lb. .24 - —
l.c.l., dms. lb. .25 - —
tanks lb. .23 - —
Monoethylamine, basis 100% amine content, dms., l.c.l., works lb. .65 - —
Monoethylaniline, dms. lb. .77 Nom.
Monomethylamine, dms., c.l., divd. lb. .65 - —
l.c.l., divd. lb. .70 - —
Monomethylpara-aminophenol sulphate, dms. lb. 3.75 - 4.00
Monosodiumphosphate (see Soda phosphate, monobasic).
Morphine, bots., 5 ozs. oz. 11.10 - —
cns., 25 ozs. oz. 10.80 - —
Acetate, bots., 5 ozs. oz. 9.00 - —
cns., 25 ozs. oz. 8.80 - —
Ethylhydrochloride, bots. 5 ozs., oz. 10.75 - —
cns., 25 ozs. oz. 10.55 - —
Hydrobromide, bots., 5 ozs. oz. 8.95 - —
cns., 25 ozs. oz. 8.75 - —
Sulphate, bots., 5 ozs. oz. 9.00 - —
cns., 25 ozs. oz. 8.80 - —
Morpholine, dms., 55 gal., l.c.l., works lb. .75 - —
smaller containers, works lb. 1.00 - —
Mullein leaves, cns. lb. .12 - .15
flowers, cns. lb. 1.50 - 1.60
Musk, nat., Tonquin, grained, bots. oz. 21.00 - 22.00
pods, caddies, 20 ozs. oz. 19.00 - 21.00
synth., ambrette, cns., 100 lbs., or more lb. 3.60 - —
5 lbs. to 75 lbs. lb. 3.85 - —
1 lb. lb. 4.00 - —
ketone, cns., 100 lbs. or more, lb. 3.75 - —
5 lbs. to 75 lbs. lb. 4.00 - —
1 lb. lb. 4.15 - —
xylol, cns., 100 lbs., or more, lb. 1.10 - —
5 lbs. to 75 lbs. lb. 1.20 - —
1 lb. lb. 1.25 - —
Musk root, bls. lb. .65 - .70
Mustard seed, California, brown, bgs. lb. .09¼ - .09¾
Danish, yellow, bgs. lb. .13¼ - .13¾
Dutch, yellow, bgs. lb. No stocks
English, yellow, bgs. lb. No stocks
Roumanian, yellow, bgs. lb. .11½ - .12

Methyl Acetone—Nutgalls

Myrobalans, J1, bgs., f.a.s. ton. 30.00 - —
J2, bgs., f.a.s. ton. 23.00 - —
Extract, liquid, 25%, bbls. lb. No prices
solid, 50% bbls. lb. No prices
powdered, 70%, bbls. lb. .06 Nom.

N

Naphtha, Painters' (see Petroleum naphtha, V. M. & P.).
Solvent (see S).
Naphthalene, crude, dom., 74 deg., bgs., c.l., works, 100 lbs. 2.25 Nom.
bgs., bbls., l.c.l., works, 100 lbs. 2.50 Nom.
78 deg., bgs., c.l., works, 100 lbs. 2.50 Nom.
l.c.l., works 100 lbs. 2.75 Nom.
import, bgs., Atl. ports 100 lbs. No prices
refined, balls or flakes, bbls., wholesalers and jobbers, f.o.b. works lb. .06¾ - —
50-lb., cs., same basis lb. .07 - —
pkgs. (16 oz.), same basis, lb. .07½ - —
(12 oz.) same basis pkg. .06 - —
chipped, crushed, bbls., same basis lb. .06 - —
rice, cryst., powd., bbls., same basis lb. .06¾ - —
Nerolin, cryst., cns. lb. 1.35 - 1.38
Nickel carbonate, bbls. lb. .36 - .36¼
Chloride, bbls. lb. .18 - .20
Oxide, black, bbls. lb. .35 - .38
Salt, bbls. lb. .13 - .13½
Nicotine sulphate, 40%, dms., works, frt. alld. lb. .70 - —
10-lb., tins lb. .86¼ - —
Nitercake, bulk, works ton. 16.00 - —
Nitrobenzene, dbl. dist., dms., c.l. lb. .08 - —
l.c.l. lb. .09 - —
tanks lb. .07 - —
Nitrocellulose, alcohol-soluble, ¼, and 40, sec. vis., bbls., works lb. .28 - —
bronzing, 20, 40, 70 sec. vis., bbls., works lb. .29 - —
ester-soluble, ¼, ½, 5-6, 15-20 sec., bbls., c.l., dry weight, works lb. .22 - —
l.c.l., ¼, ½, 5-6, 15-20 and higher vis., bbls. lb. .26 - —
lacquer, 20-30 and 60-80 sec., vis., bbls., works lb. .29 - —

Nitrocellulose prices are quoted on the basis of dry weight; denatured alcohol used in manufacture is charged extra. Barrels are to be paid for extra, but are returnable.

Nitrogen solution, nitrogen basis, tanks, f.o.b. Atlantic and Gulf ports unit-ton. 1.2158 - —
Nitrogenous fertilizer material, 8-11% ammon., dom., bulk, f.o.b. Carrollville, Wis., divd. unit-ton. 2.25 - —
f.o.b. Chemical, Ill., unit-ton. 2.25 - —
East Coast producing points unit-ton. 3.00 - —
import, bgs., c.i.f. Atlantic ports, shipt. unit-ton. 2.85 - —
Nitronaphthalene, bbls. lb. .24 - .25
Nutgalls, Alleppo, bgs., cs. lb. .29 - .30
Extract (see Gall extract).

CAUCASIAN

MANGANESE ORE and DIOXIDE

(Washed 51/53% Mn. Ordinary 45% Mn. and Higher) (85% MnO_2 Fe. below 1%)

SOJUZUGLEEXPORT

MOSCOW (U.S.S.R.)

LEONARD J. BUCK, Inc.

AMERICAN DISTRIBUTORS

1 NEWARK AVENUE, JERSEY CITY, N. J.

Nutmegs—Perchlorethylene

Nutmegs, 80s, bgs., cs.	lb.	.24	- .25
110s, bgs., cs.	lb.	.22	- .22½
West Indian, bgs.	lb.	.12¾	- .13¼
Nux vomica, bls.	lb.	.06½	- .07
powd., bbls., bxs.	lb.	.08	- .09

O

Oakbark extract, 25% tan., bbls., c.l., wks.	lb.	.03¼	- —
l.c.l., bbls., wks.	lb.	.03¾	- —
tanks	lb.	.02¾	- —
Ocher (see Yellow).			
Octanes, 100-140° C., mixed, dms., c.l., G.3.	gal.	.12½	- —
l.c.l., G.3	gal.	.17	- —
tanks, G.3	gal.	.10¼	- —
Octyl acetate, dms., c.l., works.	lb.	.16	- —
l.c.l., works	lb.	.17	- —
tanks, works	lb.	.15	- —
Oil, almond, bitter, artif. (see Benzaldehyde)			
natural, bots.	lb.	2.00	- 2.10
e.p.a., bots.	lb.	2.10	- 2.20
sweet, true, exp., cns.	lb.	1.00	Nom.
Amber, crude, cns.	lb.	.19	- .20
ref'd, cns.	lb.	.50	- .51
Amyris, cns.	lb.	3.00	- 3.25
Angelica root, bots.	lb.	45.00	Nom.
seed, bots.	lb.	75.00	Nom.
Anilin (see A).			
Anise, USP, cns., dms.	lb.	.85	- .90
Apricot, kernels, cns.	lb.	.35	- .40
Bahasau, tanks	lb.	.06¾	Nom.
Bay, W. I., 50-55% phenols, cns.	lb.	1.20	Nom.
55-60% phenols, cns.	lb.	1.35	Nom.
Bergamot, artif., cns.	lb.	1.25	- 1.30
natural, coppers	lb.	4.10	- 4.25
Betula (see Oil, sweet birch).			
Birch (see Oil, sweet birch).			
Birchtar, crude, dms.	lb.	.25	Nom.
rectified, cns.	lb.	.75	Nom.
Bois de rose, Brazil, cns.	lb.	1.60	Nom.
Cade, USP IX (see Oil, juniper tar).			
Cajeput, tech., dms.	lb.	.53	Nom.
USP IX, cns.	lb.	.68	Nom.
Calamus, cns.	lb.	3.50	Nom.
Camphor, sassafrassy, cns.	lb.	.35	Nom.
dms.	lb.	.33	Nom.
white, cns.	lb.	.52	Nom.
dms.	lb.	.50	Nom.
Cananga, native, cns.	lb.	1.35	Nom.
rectified, cns.	lb.	1.80	Nom.
Capsicum (oleoresin) N. F. VI, cns.	lb.	2.25	Nom.
Caraway, USP cns.	lb.	3.00	Nom.
Cardamom, bots.	lb.	15.00	Nom.
Cassia, USP, cns., dms.	lb.	1.30	- 1.35
Castor, blown, one-way dms., c.l.	lb.	.12¾	Nom.
l.c.l.	lb.	.13½	Nom.
medicinal, bbls., c.l.	lb.	.11¼	Nom.
l.c.l.	lb.	.12	Nom.
cns. (1-gal.) l.c.l.	lb.	.15	Nom.
dms. (returnable), c.l.	lb.	.11	Nom.
l.c.l.	lb.	.11¾	Nom.
(5-gal.), l.c.l.	lb.	.13	Nom.
tanks	lb.	.10½	Nom.
No. 3, bbls., c.l.	lb.	.10¾	Nom.
l.c.l.	lb.	.11½	Nom.
dms. (returnable), c.l.	lb.	.10½	Nom.
l.c.l.	lb.	.11¼	Nom.
tanks	lb.	.10	Nom.
dehydrated, dms., c.l.	lb.	.156	Nom.
l.c.l.	lb.	.16	Nom.
tanks	lb.	.15	Nom.

Castor oil, med. and No. 3 prices are dlvd. all points between N. Y. and Philadelphia, Albany, and N. E. States; Chicago c.l. prices ¾c. higher than N. Y.; l.c.l. prices ¾c. higher than N. Y.; one-way dms., ¼c. higher, all points.

sulphonated, 50% (43% fat), dms., c.l.	lb.	No prices	
l.c.l.	lb.	No prices	
75% (63% fat), dms., c.l.	lb.	No prices	
l.c.l.	lb.	No prices	
80% (68% fat), dms., c.l.	lb.	No prices	
l.c.l.	lb.	No prices	
Cedarleaf, cs.	lb.	.95	- 1.00
dms.	lb.	.90	- .95
Cedarwood, Oregon, cns., dms.	lb.	.28	- .30
Southern, cns., dms.	lb.	.20	- .21
Celery, bots.	lb.	7.25	Nom.
Chaulmoogra, USP, cns., 500 lbs.	lb.	1.00	- —
25 lbs.	lb.	1.25	- —
Chinawood, dms.	lb.	.25	- .28
tanks	lb.	.24	- .27
Cinnamon, Ceylon, bots.	lb.	9.25	-25.00
Seychelle, bots.	lb.	7.25	Nom.
Citronella, Ceylon, cns.	lb.	.47	Nom.
dms.	lb.	.45	Nom.
Java, cns., dms.	lb.	.40	Nom.
Clove, makers, USP, cns.	lb.	1.50	- 1.60
dms.	lb.	1.45	- 1.50
Coconut, Manila, crude, tanks,	lb.	.03¾	- —
Pac. Cst.	lb.	.03¾	- —
edible, 76°, tax incl., dms. (returnable), c.l.	lb.	.09¾	- —
l.c.l.	lb.	.10½	- —
tanks	lb.	No prices	
Cod, Newfoundland, shipt., un-tanked	gal.	No prices	
Norwegian, shipt., bbls.	gal.	No prices	
Codliver, med., USP, bbls.	bbl.	38.00	-48.00
Coriander, bots.	lb.	15.00	Nom.
Corn, crude, tanks, wks.	lb.	.06¼	- .06½
refd., bbls.	lb.	.08¾	- .09
Cottonseed, dom., cooking, bbls.	lb.	.09½	- —
salad, bbls.	lb.	.10	- —
import, Brazilian, semi-refd., bulk	lb.	No prices	
Creosote (see C).			
Creton, USP, cns.	lb.	1.75	Nom.
Cubeb, USP, cns.	lb.	3.50	Nom.
Crude (see Petroleum, crude).			
Cumin, bots	lb.	7.50	Nom.
Cypress, dom., bots.	lb.	5.25	Nom.
import, cns.	lb.	12.00	Nom.
Degras (see D).			
Diesel, Bayonne, bulk	bbl.	1.75	- —
California, 24 plus, bulk	bbl.	1.55	- —
Dill seed, bots.	lb.	3.00	Nom.
weed, bots.	lb.	3.60	Nom.
Dip (see L).			
Erigeron, cns.	lb.	2.40	Nom.
Eucalyptus, cns.	lb.	.61	Nom.
dms.	lb.	.59	Nom.
Fennel, sweet, cns.	lb.	3.00	Nom.
Fuel, bunker, California, tide-water	bbl.	.90	- —
Gulf Coast	bbl.	.90	- .95
Louisiana, Arkansas, 10-14	bbl.	.85	- 1.00
N. Y. and N. J. terminals:—			
Monday	bbl.	1.15	- —
Tuesday	bbl.	1.15	- —
Wednesday	bbl.	1.15	- —
Thursday	bbl.	1.15	- —
Friday	bbl.	1.15	- —
Saturday	bbl.	1.05	- —
North Texas, 18-22	bbl.	.85	- .90
24-28, zero cold test	bbl.	1.00	- 1.10
Oklahoma, 18-22	bbl.	.85	- .90
24-28, zero cold test	bbl.	1.00	- 1.10
24-28, 15 and above	bbl.	.85	- .90
Pennsylvania, 36-40	gal.	.04	- .04¼
Furnace, Bayonne, 1, bulk, refinery	gal.	.05	- —
2, bulk, same basis	gal.	.04¾	- .04⅞
4, bulk, same basis	gal.	.03¾	- .04¼
Oil, furnace, Louisiana-Arkansas, 32-36, light straw	gal.	.03¼	- .03½
Oklahoma, 28-30	gal.	.03	- —
32-36	gal.	.03¾	- .03½
34-36	gal.	.03¾	- .03¾
38-40, straw	gal.	.03¾	- .03¾
38-40 zero, 60 c.p.	gal.	.03¾	- .04
Fusel (see F).			
Gas, Bayonne, bulk	gal.	.04	- —
Gulf Coast, bulk	gal.	.03¼	- —
North Texas, bulk	gal.	.02¾	- —
Oklahoma, bulk	gal.	.03¼	- —
Gaultheria (see Oil, wintergreen leaf).			
Geranium, Algerian, rose, cns.,	lb.	3.25	- 3.50
Bourbon, cns.	lb.	3.25	- 3.50
Turkish (see Palmarosa).			
Grapefruit, cns.	lb.	1.85	- 1.90
Grapeseed, dms.	lb.	.40	- .45
Ginger, dist., bots.	lb.	4.50	Nom.
Guaiac wood, concrete, bots.	lb.	2.10	Nom.
Haarlem, import, bots.	gross	5.50	- 5.75
Hemlock, cns.	lb.	1.00	Nom.
Juniper berry, USP, cns.	lb.	1.85	- 2.00
Wood, tech., cns.	lb.	.45	- —
Juniper tar, USP XI, 1,000 lbs., dms.	lb.	.60	- .65
cns.	lb.	.62	- .67
Lard, common, 1, bbls.	lb.	.09¼	- —
2 bbls.	lb.	.09	- —
extra, bbls.	lb.	.09¾	- —
1, bbls.	lb.	.09½	- —
Winter, strained, extra, bbls.,	lb.	.09¾	- —
prime, burning, bbls.	lb.	.10½	- —
prime, ined., bbls.	lb.	.10	- —
Laurel, bots.	lb.	4.50	Nom.
Lavandin, cns., 25 lbs.	lb.	1.50	Nom.
Lavender flower, French 50% ester, cns.	lb.	5.75	Nom.
38-42% ester, cns.	lb.	4.75	Nom.
35-38% ester, cns.	lb.	4.25	Nom.
30-32% ester, cns.	lb.	3.75	Nom.
garden, cns.	lb.	.42	- .45
spike, Spanish, tech., cns.	lb.	1.05	Nom.
dms.	lb.	.95	Nom.
Lemon, Calif., cns.	lb.	3.00	- —
Messina, coppers, cns.	lb.	3.35	- 4.00
Terpeneless, Type 1	lb.	10.75	-14.50
Type 2	lb.	8.50	-14.50
Lemongrass, native, cns., dms.,	lb.	.60	Nom.
Lime, dist., West Indian, cns.	lb.	3.75	Nom.
expressed, cns.	lb.	7.25	Nom.
Terpeneless, Type 1	lb.	42.00	-44.50
Type 2	lb.	60.00	-78.00
Linaloe wood, cns.	lb.	1.50	Nom.
Linseed, raw, bbls., c.l.	lb.	.0990	- .1010
l.c.l., 10 to 69	lb.	.1010	- .1030
5 to 9	lb.	.1050	- —
less than 5	lb.	.1070	- —
tanks	lb.	.0990	- .0990

Boiled linseed oil prices are .004 cents higher than raw.

Lovage, bots.	lb.	41.25	-60.00

Lubricating, at refinery (including U.S. tax 4c. per gal):—California, green, 70, 80, 100, vis., dms. gal. .20 - —
140 vis., dms. gal. .25 - —
green, pale, 750, 900 vis., dms. gal. .26 - —
green, pale, red, 200, 300, 350, 400, 450, 500, 600, 700 vis. dms. gal. .26 - —
Oklahoma, bright stocks, 100-110 D. color 4, 0-10 pour, tanks. gal. .25 - —
15-25 pour, tanks. gal. .24½ - —
150-160 D. color, 4½, 0-10 pour, tanks. gal. .26 - —
15-25 pour, tanks. gal. .25 - —
150-160 E. color 5½, 15-25 pour, tanks. gal. .25 - —
180-200 D. color 4½, 15-25 pour, tanks. gal. .25 - —
neutrals, 0-10 pour, 150 vis., 3 color, tanks. gal. .16 - —
180 vis., 3 color, tanks, gal. .17 - —
4 color, tanks. gal. .16½ - —
200 vis., 3 color, tanks, gal. .17½ - —
4 color, tanks. gal. .17 - —
250 vis., 3 color, tanks, gal. .18½ - —
4 color, tanks. gal. .18 - —
280 vis., 3 color, tanks, gal. .19½ - —
4 color, tanks. gal. .19 - —

15-25 pour prices are ½c. per gallon higher than zero to 10° pour.

Penn., bright, 600, 10-15 pour, tanks.	gal.	.32	- —
25 pour, tanks.	gal.	.30	- —
cylinder, 600 fire, tanks,	gal.	.15	- —
600 flash, tanks.	gal.	.20	- —
630 flash, tanks.	gal.	.22	- —
635 fire, tanks.	gal.	.18	- —
650 fire, tanks.	gal.	.19	- —
Warren, E, amber, tanks,	gal.	.22	- —
Penna, Warren, E, neutral, 150 vis., 3 color, tanks.	gal.	.25	- —
180 vis., 3 color, tanks.	gal.	.27	- —
200 vis., 2 color, tanks.	gal.	.30	- —
spot, Penna., bright, bbls., c.l., f.a.s.	gal.	.28	- —
unfiltered, 600 s. r. bbls., f.a.s.	gal.	.21½	- —
600 flash, s. r., bbls., c.l.	gal.	.23½	- —
630 flash, bbls, c.l., f.a.s.	gal.	.27½	- —
Warren, E., bbls., c.l., f.a.s., smaller lots, f.o.b.	gal.	.27	- —
Mace, dist., cns., dms.	lb.	1.75	- 1.80
Mandarin, superior, coppers.	lb.	6.00	Nom.
Menhaden, crude, tanks, f.o.b. Balto.	gal.	.33½	Nom.
refd., alkali, dms.	lb.	.0800	- —
tanks	lb.	.0740	- —
refd., blown, dms.	lb.	.0820	- —
kettle-bodied, dms.	lb.	.0920	- —
light pressed, dms.	lb.	.0740	- —
tanks	lb.	.0680	- —
Mineral, white (see Oil, white mineral).			
Mustard, artif., USP, cns.	lb.	1.60	- 1.70
dist., natural, bots.	lb.	8.50	- 9.00
Neatsfoot, 20° cold test, bbls.,	lb.	.19¼	- —
extra, bbls.	lb.	.09¾	- —
1, bbls.	lb.	.09½	- —
pure, bbls.	lb.	.15¾	- —
prime, bbls.	lb.	.10	- —
sulphonated, common, 25% moisture, dms.	lb.	.10½	- —
Neroli, bots.	lb.	85.00	-140.00
Nutmeg, USP, cns., dms.	lb.	1.75	- 1.80
Officica, dms.	lb.	.21	Nom.
Oleo, 1, bbls.	lb.	.09¾	- —
2, bbls.	lb.	.09¼	- —
Olibanum, bots.	lb.	5.00	- 5.25
Olive, denat., bbls.	gal.	1.35	Nom.
edible, bbls.	gal.	2.25	Nom.
foots, dms.	lb.	.10	Nom.
sulphonated, 50% (43% fat), dms., c.l.	lb.	No prices	
l.c.l.	lb.	No prices	
75% (63% fat), dms., c.l.	lb.	No prices	
l.c.l.	lb.	No prices	
80% (68% fat), dms., c.l.	lb.	No prices	
l.c.l.	lb.	No prices	
Orange, sweet, dist., cs.	lb.	.90	- —
Expressed, African, cns., dms.	lb.	1.25	Nom.
Calif., cns.	lb.	1.50	- —
Florida, cns.	lb.	1.30	- 1.35
Messina, USP, coppers.	lb.	3.00	- 3.75
West Indies, cns.	lb.	2.45	- 2.50
terpeneless	lb.	68.00	-69.00
Origanum, cns.	lb.	1.60	- 1.65
Orris, Florentine, concrete, extra strong bots.	oz.	4.75	- 5.50
Palm, Niger, csks.	lb.	No prices	
shipment	lb.	No prices	
softs, 12½%, bulk, shipt.	lb.	No prices	
25%, bulk, shipt.	lb.	No prices	
Sumatra, shipt., bulk.	lb.	No prices	
Palmrosa, cns.	lb.	2.75	Nom.
Palmkernel, bulk, shipt.	lb.	No prices	
Paraffin, 320° flash, 60-70 vis., tanks, G. 3.	gal.	.05½	- —
350° flash, 70-80 vis., tanks, G. 3.	gal.	.05½	- —
80-85 vis., bbls., extra, Ind. refy.	gal.	.12	- —
350° flash, 100-105 vis., bbls., extra, Ind. refy.	gal.	.14	- —
360° flash, 100-110 vis., tanks, G. 3.	gal.	.05¾	- —
Patchouli, bots., cns.	lb.	4.25	Nom.
Peanut, crude, dom., tanks.	lb.	.07	Nom.
refd., edible, bbls.	lb.	.10½	Nom.
Pennyroyal, dom., cns.	lb.	2.15	Nom.
import, cns.	lb.	2.75	Nom.
Peppermint, natural, cns., dms.	lb.	2.75	- 3.00
redist., USP, cns., dms.	lb.	3.00	- 3.25
Perilla, dms.	lb.	.14	- .14½
tanks	lb.	.13¼	- .13¾
Petitgrain, Paraguay, cns.	lb.	1.00	Nom.
Pimento berry, cns.	lb.	4.35	Nom.
leaf, cns.	lb.	3.00	Nom.
Pine, dest.-dist., straw-color. dms., dlvd., E. ports.	gal.	.33	- .56
steam-dist., dms.	gal.	.59	- —
tanks	gal.	.54	- —
Pineneedle, Siberian, cns.	lb.	1.35	- 1.40
Putty, bbls., E. segunuo, Richmond, Cal.	gal.	.22½	- —
contracts	gal.	.19½	- —
Whiting, Ind.	gal.	.23	- —
dms., c.l., Bost., Provid.	gal.	.25	- —
l.c.l., same basis.	gal.	.27	- —
tanks, same basis.	gal.	.18	- —
Martinez, Cal.	gal.	.28	- —
Rapeseed, blown, bbls.	lb.	.17	- .17½
denat., bbls.	gal.	1.00	Nom.
Red, dist. or saponif, dms., dlvd.	lb.	.09	- .09¼
tanks, dlvd.	lb.	.08¼	- —
Rose, artif., bots.	oz.	2.00	Nom.
natural, coppers	oz.	No prices	
Rosemary, Spanish, cns.	lb.	.75	Nom.
dms.	lb.	.70	Nom.
Rosin, 1st rectfd., dms.	gal.	.50	- —
2d rectfd., dms.	gal.	.52	- —
3d rectfd., dms.	gal.	.56	- —
Rue, bots.	lb.	3.00	Nom.
Sage, cns.	lb.	2.50	Nom.
Sandalwood, E. I., USP, cns.	lb.	5.25	- 5.50
Mysore, cns., case lots.	lb.	No prices	
Sardine, crude, tanks, Pac. Cst.	gal.	.32	Nom.
refd., alkali, dms.	lb.	.0800	- —
tanks	lb.	.0740	- —
kettle boiled, dms.	lb.	.0920	- —
light pressed, dms.	lb.	.0740	- —
tanks	lb.	.0680	- —
Sassafras, artif., cns.	lb.	.62	- .64
dms.	lb.	.60	- .62
natural, cns., dms.	lb.	1.10	Nom.
Savin, cns.	lb.	3.00	Nom.
Savory, cns.	lb.	2.00	Nom.
Sesame, refd., import, dms.	lb.	No prices	
Shingle stain, bbls., c.l., wks., works	gal.	.19	- —
l.c.l., works	gal.	.21	- —
tanks, works	gal.	.14	- —
Snakeroot, Canada, cns.	lb.	9.50	-10.00
Soybean, dom., crude, dms.	lb.	.06¾	- .06⅞
tanks	lb.	.06	- —
refd., dms.	lb.	.08¾	Nom.
tanks	lb.	.07¼	- —
Spearmint, USP, cns.	lb.	2.00	- 2.10
Sperm, bleach, 28° dms.	lb.	.1030	- —
45°, dms.	lb.	.0960	- —
natural, dms.	lb.	.0910	- —
Spruce, cns., dms	lb.	1.00	Nom.
Sweet, birch, North, cns.	lb.	2.25	- 2.65
South, cns.	lb.	1.45	- 1.50
Tall, crude, dms., c.l., works,	ton.	35.00	- —
l.c.l., works	ton.	40.00	-55.00
tanks, works	ton.	25.00	- —
refined, dms., c.l., works	lb.	.04	- .05½
l.c.l., works	lb.	.04½	- .06¼
tanks, works	lb.	.03½	- .05
Tallow, acidless, bbls.	lb.	.09¼	- —
tanks	lb.	.08¾	- —
Tansy, cns.	lb.	7.00	Nom.
Tar, pine, cm'l, dms., c.l., dlvd., E. cities.	gal.	.26	- —
S. ports	gal.	.25	- —
l.c.l.	gal.	.26	- —
tanks, dlvd. E. cities.	gal.	.20	- —
Tar, pine, rectfd., USP, bbls., dlvd., E. ports.	gal.	.58	- —
Tar acid (see T).			
Teaseed, crude, dms.	lb.	.13½	Nom.
refined, dms.	lb.	.14½	Nom.
Tea Tree (see Oil, Ti tree).			
Thyme, NF, red, dms.	lb.	1.10	Nom.
white, dms.	lb.	1.15	Nom.
Tung (see Oil, chinawood).			
Ti trees, cns.	lb.	2.50	- 3.00
Turkey red (see Oil, castor, sulphonated)			
Turpentine (see T).			
Turtle, cns.	gal.	7.50	Nom.
Valerian, bots.	lb.	8.00	Nom.
Vetiver, bots.	lb.	6.00	-18.00
Walnut, crude, dms.	lb.	.15	Nom.
refd., dms.	lb.	.16	Nom.
Whale, refd., natural, dms.	lb.	.0910	- —
winter, bleach, dms.	lb.	.0950	- —
Wheat germ, cns., dms.	gal.	17.50	-25.00
White mineral, dom., dms., tech., 50-60 vis., dms.	gal.	.43	- .44
65-75 vis., dms.	gal.	.45	- .46
80-90 vis., dms.	gal.	.46	- .47
USP, 80-90 vis., dms.	gal.	.49	- .50
95-105 vis., dms.	gal.	.57	- .58
125-135 vis., dms.	gal.	.64½	- .65½
140-150 vis., dms.	gal.	.68	- .69
175-185 vis., dms.	gal.	.72½	- .73½
200-210 vis., dms.	gal.	.74½	- .75½
320-330 vis., dms.	gal.	.80½	- .81
335-345 vis., dms.	gal	.82	- —
Russian, 80-90 vis., dms.	gal.	.58	Nom.
145-155 vis., dms.	gal.	.76½	Nom.
175-185 vis., dms.	gal.	.80½	Nom.
335-345 vis., dms.	gal.	.89	Nom.
Wintergreen, natural, North, cns.	lb.	4.00	- 8.00
South, cns.	lb.	3.05	- 8.75
synth (see Methyl salicylate).			
Wood (see Oil, chinawood).			
Wormseed, cns.	lb.	3.00	- 3.25
Wormwood, cns.	lb.	4.50	- 4.75
Ylang-ylang, Bourb., bots., cns.	lb.	2.50	- 3.00
Manila, bots.	lb.	18.00	-34.00
Olivine, aggregate, c.l., mines,	ton.	5.00	- 8.00
Lumps same basis	ton.	7.00	- —
Spalls, same basis	ton.	6.00	- —
ground, 200 mesh, c.l., mines,	ton.	15.00	- —
20 mesh to dust	ton.	10.00	- —
Opium, USP, cns.	lb.	11.50	-12.50
gran., cns.	lb.	12.50	-13.50
powd., cns	lb.	12.50	-13.50
Orange, Lake, Persian, bbls.	lb.	.30	- .45
Mineral, Amer., bbls., 5 tons, dlvd. Ala., Ark., Cal., Fla., Ga., La., Miss., Okla., Tex., and W. of Cascade Mts. in Ore. and Wash.	lb.	.11	- —
Ariz., Idaho, Nev., Utah and E. of Cascade Mts. in Ore. and Wash.	lb.	.11½	- —
Colo., Mont., N.M., Wyo.	lb.	.11¾	- —
Other points	lb.	.10¾	- —
smaller lots, dlvd., Ala., etc.	lb.	.11¼	- —
Ariz., etc.	lb.	.12	- —
Colo., Mont., N. M., Wyo.	lb.	.11¾	- —
Other points	lb.	.11¼	- —
French, Tours, casks, ex dock.	lb.	.13½	- —
kgs., ex dock	lb.	.14½	- —
Molybdate, bbls.	lb.	.31	- —
Toner, bbls.	lb.	.80	- —
Orangeflower petals, cs.	lb.	.65	- .70
Orange peel, bitter, bls.	lb.	.09	- .10
sweet, bls.	lb.	.17	- .19
Orris root, Florentine, bgs.	lb.	.11	- .14
fingers, cs.	lb.	1.25	- 1.30
powd., bbls., bxs.	lb.	.16	- .20
Verona, bls.	lb.	.11	- .14
powd., bxs., cs.	lb.	.16	- .20
Orthoanisidin, bbls.	lb.	.70	- —
Orthochloroanilin, dms.	lb.	.60	- .75
Orthochlorophenol, dms.	lb.	.82	- —
Orthocresol, dms., c.l., works.	lb.	.16½	- —
l.c.l., same basis	lb.	.17¾	- —
Orthodichlorobenzene, dms., c.l., works, frt. alld. E. of Rockies.	lb.	.06	- —
l.c.l., same basis	lb.	.07	- —
100-lb. tins, same basis.	lb.	.06	- —
50-lb tins, same basis.	lb.	.06	- —
tanks, same basis	lb.	.06½	- —

Orthodichlorobenzene prices west of Rockies lc. per lb. higher.

Orthonitroanilin, dms.	lb.	.55	- —
Orthonitrochlorobenzene, dms.	lb.	.15	- .19
Orthonitroparachlorophenol, ms.	lb.	.75	- —
Orthonitrotoluene, dms.	lb.	.09	- —
Orthotoluidin, dms.	lb.	.19	- —
Osage orange extract, cryst., bbls.	lb.	.19	- —
liquid, 43°, bbls.	lb.	.06	- —
51°, bbls.	lb.	.09	- —
Oxyquinolin sulphate, cns. 100-lb. bots., cns., 1-50 lbs.	lb.	3.50	- —
Orthotoluene hydrochloride, dms.	lb.	3.25	- 4.00
Sulphonate, kgs.	lb.	2.00	- 2.00

P

Papain, powd., cs.	lb.	2.00	- 2.10
Paprika, Hungarian, extra fancy, bgs.	lb.	.39	- .40
medium, bgs.	lb.	.36	- .37
Portuguese, extra fancy, bgs.	lb.	.31½	- .32
fancy, bgs.	lb.	.30½	- .31
Spanish, extra fancy, cs.	lb.	.40	- .41
Parachlorophenol, dms.	lb.	.45	- —
Paracymene, refd., dms.	gal.	.75	- 1.25
Paradichlorobenzene, dms., c.l.	lb.	.11	- .12
l.c.l.	lb.	.12½	- .18¼
Paraffin, crude, scale, white, 122-124 A.m.p., bgs., c.l., Okla., refy.	lb.	.05½	Nom.
bbls., c.l., N. Y.	lb.	.05½	Nom.
124-126 A.m.p., bgs. c.l., Okla., refy.	lb.	.05¾	Nom.
bbls., c.l., N. Y.	lb.	.05½	Nom.
yellow, 124-126 A.m.p., bbls., c.l., N. Y.	lb.	.05½	Nom.
fully refd., slabs, 123-125 A.m.p., bgs., c.l.	lb.	.0490	- —
loose, c.l.	lb.	.0455	- —
125-127 A.m.p., bgs., c.l.	lb.	.0505	- —
loose, c.l.	lb.	.0470	- —
128-1°0 A.m.p., bgs., or loose, c.l.	lb.	.0510	- —
131-133 A.m.p., bgs. or loose, c.l.	lb.	.0535	- —
133-135 A.m.p., bgs., or loose, c.l.	lb.	.0565	- —
135-137 A.m.p., bgs., or loose, c.l.	lb.	.0590	- —
138-140 A.m.p., bgs., or loose, c.l.	lb.	.0665	- —
143-145 A.m.p., bgs., or loose, c.l.	lb.	.0760	- —
151-153 A.m.p., bgs., or loose, c.l.	lb.	.70	Nom.

Refined paraffin prices in cases are 1½c. lb. higher than bags price; solid in tankcars is .05c. lower.

match, A.m.p. up to and incl. 110-112 bbls., c.l.	lb.	.03½	- .03¾
semirfd., solid., 122-124 A.m.p., bgs.	lb.	.03¼	Nom.
Paraformaldehyde, dms., 1,000 lbs. or more shipments, f.o.b. Perth Amboy, Philadelphia, or N. Y. C.	lb.	.24	- —
100 to 900 lbs. shipments, same basis	lb.	.25	- —
Paraldehyde, tech., 99% 55 and 100 gal. dms., c.l., works	lb.	.10	- —
l.c.l., works	lb.	.11¼	- —
5 and 10 gal. dms., works	lb.	.15	- —
USP, cs., cbys.	lb.	.37	- .42
Paranitroanilin, kgs., works	lb.	.47	- —
Paranitrochlorobenzene, kgs.	lb.	.15	- —
Paranitrophenol, kgs.	lb.	.35	- —
Paranitrotoluene, kgs.	lb.	.30	- —
Paraphenylenediamine, bbls.	lb.	1.25	- 1.30
Paratoluenesulphonamide, bbls.	lb.	.70	- —
Paratoluidin, bbls.	lb.	.48	- —
Pareira brava root, bls.	lb.	.25	- .27
Paris green, dealer, dms., bbls., c.l., f.o.b. works frt. alld.,	lb.	.23	- .28
less car lot, same basis	lb.	.24	- .26
Passion flower, herb, bls.	lb.	.07	- .08
Patchouli leaves, bls.	lb.	.28	- .30
Pellitory root, bls.	lb.	.20	- .30
Pennyroyal leaves, bls.	lb.	.15	- .16
Pentanes norm., 28-38°, dms., c.l., G.3.	gal.	.11½	- —
l.c.l., G.3	gal.	.16	- —
tanks, G.3	gal.	.08¼	- —
laboratory grade, dms., c.l., G.3.	gal.	.14	- —
l.c.l., G.3	gal.	.25	- —
Pepper, black, Alleppey, bgs.	lb.	.08	- .09
Lampong, bgs.	lb.	.0390	- .0410
Tellicherry, bgs.	lb.	.08½	Nom.
Red, chillies, Japan, Hontaka,	lb.	.21	- .21½
Mombassa, bgs.	lb.	.38	- .40
White, Java, Muntok, bgs.	lb.	.08½	- .09
Saigon, bgs.	lb.	.08	- .08½
Peppermint leaves, dom., bls.	lb.	.34	- .35
import, bls.	lb.	.45	- .55
Perchlorethylene, dms., c.l., works, frt. alld., zone 1.	lb.	.08	- —
l.c.l., same basis	lb.	.08¼	- —
Zone 2, dms., c.l., works, frt. alld.	lb.	.08½	- —
l.c.l., same basis	lb.	.09	- —
Zone 3, dms., c.l., works, frt. alld.	lb.	.09	- —
l.c.l., same basis	lb.	.09¼	- —

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Prepared Monthly by U. S. Industrial Chemicals, Inc.

USI SOLVENT NEWS USI

Reg. U. S. Pat. Off.

November ★ A Monthly Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1939

1940 Cars Will Use Both Nitrocellulose And Synthetic Resins

Wider Use of Flexible Finishes Seen For Parts Subject to Vibration

Nitrocellulose lacquers and synthetic resin finishes will both get their share of the spotlight when the 1940 passenger car models make their appearance on the roads. No sharp trend is seen this year toward either type of finish. Among the leading car makes, Chrysler, Ford, Mercury, Lincoln-Zephyr, Nash, and Willys will use synthetic resin finishes. All General Motors units, Hudson, and Packard will be finished with conventional lacquers. Studebaker divides its line, using synthetic resins for Champions and nitrocellulose for Commanders and Presidents.

Trucks Use Synthetic Resins

In the field of truck production, the synthetic resins will be used almost exclusively. Synthetic base undercoats will be widely used under the synthetic finishes, and in some cases under nitrocellulose lacquers as well.

An interesting trend is seen in the use of larger quantities of flexible finishes, particularly on parts that are subjected to accidental distortion, constant vibration, or intermittent abrasive action.

Finishes other than lacquers are receiving increased attention, too. Some work is being done on the plating of black cadmium coatings on hardware, and plastic coatings are also being studied experimentally for this purpose.

A handy data sheet has been prepared on the properties of Ansol PR, an anhydrous alcohol blend having many solvent applications. Copies of this chart may be obtained free of charge from U.S.I. Ask for Bulletin AP.

New Developments Responsible For Increasing Solox Demand

U.S.I.'s Alcohol-Type General Solvent Finds Use in Many Lines, Including Manufacture of Adhesives, Cleaning Fluids, Lacquers

The market for Solox, U.S.I.'s proprietary alcohol-type solvent, continues to expand with the discovery of new applications made possible by its versatility. Since its introduction by U.S.I., Solox has not only displaced other alcohol products in many solvent applications, but has greatly broadened its field of usefulness through its entry into new lines.

Truck Fuel Oil Tanks

One of the most interesting of the newer uses for Solox is in Diesel engine fuel oil tanks on trucks during the winter season. Here Solox is found especially useful, not only because of its ability to dissolve gums and sludge formations, but also because, being able to burn in the presence of water, Solox flashes off any moisture present, and in this way overcomes the blanketing effect of moisture. A still further advantage of Solox in this application is that it appears to have a catalytic effect which assists in securing cleaner and more complete combustion.

Widely Used in Lacquer Formulation

The composition of Solox has made it a very effective tool in the formulation of the newer lacquers. It consists essentially of 100 parts of S. D. Alcohol No. 1, to which are added 5 parts of ethyl acetate and 1 part of aviation gasoline. The addition of ethyl acetate increases the effectiveness of the solvent in a number of ways. In the first place, the ethyl acetate, besides being itself a very good organic solvent, actually increases the solvent power of the alcohol. These properties have been put to good use by many manufacturers of cellulose acetobutyrate lacquers, who have found a mixture of Solox and ethylene dichloride to be an excellent solvent.

In Special Adhesives

In the adhesive field, Solox has proved especially popular in the manufacture of quick-setting adhesives of the cellulose type. These adhesives have quickly won a place for themselves in many special applications, among which may be listed laminating cloth, paper, cellophane, and cellulose acetate.

Another wide use of Solox is in cleaning fluids. Combining a high solvent power with non-corrosive qualities, Solox has many advantages for use in cleaning watches, clocks, electrical equipment, and many other products.

Other Applications

The non-corrosive qualities of Solox are responsible for its use in other fields as well. In the prevention of ice formation on airplane propellers, a mixture of 15% glycerine and 85% Solox has been found highly effective. In duplicating machines, where corrosion is also a factor, Solox has been used to dissolve the aniline dye on the master copy.

Properties and applications of this unusual solvent are described in greater detail in a leaflet, "Solox, The General Solvent," which is available on request from U.S.I.

M. J. Rolstad Joins U.S.I.

NEW YORK, N. Y.—Announcement is made of the appointment of M. J. Rolstad to the sales staff of U. S. Industrial Chemicals, Inc., effective November 1. Mr. Rolstad will handle the sales of DEREX, U.S.I.'s new insecticide concentrate, to manufacturers throughout the country.

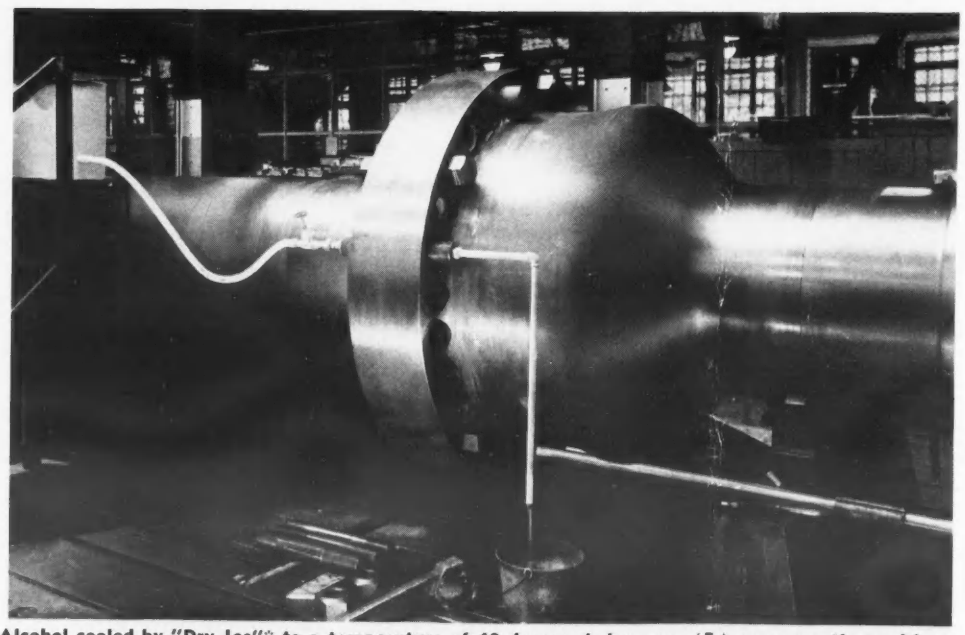
Mr. Rolstad's many years of broad experience in the insecticidal field particularly fit him for the introduction of this new and unique product. He will make his headquarters in U.S.I.'s general offices in New York.

A new one-coat finish for furniture gives the equivalent of two coats of lacquer, and does not require heating or baking, according to the manufacturer. It is said to be highly resistant to alcohol and water.

More Oiticica Oil Used

WASHINGTON, D. C.—On the market only a few years, oiticica oil is already considered one of the leading drying oils, and is finding increased use in the manufacture of paints and varnishes, it is reported by the Chemical Division of the Department of Commerce. Imports during the first half of this year exceeded the entire 1938 total.

Alcohol and "Dry-Ice" Shrink Tight-Fitting Bolts



Alcohol cooled by "Dry-Ice"* to a temperature of 40 degrees below zero (F.) was recently used by a large machinery manufacturer in this unusual assembly job on a coupling for connecting two shafts. 4-inch bolts were used for the assembly, and they were shrunk to fit by circulating the chilled alcohol through holes in the center of the bolts.

*Manufactured and supplied by Pure Carbonic, Incorporated, an associated Company of U.S.I.

ADVERTISEMENT—*This entire page is a paid advertisement.*

November ★ SOLVENT NEWS ★ 1939

One-Coat Finish Resembles Hammered Metal Surface

STAMFORD, Conn.—A finish that simulates the surface of hammered metal can be produced by a coating that can be applied to metal, wood, glass, or even fibrous materials, according to a patent issued to an inventor here.

According to the inventor, a typical finish is formulated as follows. A pigmented base material is prepared in the following percentages by weight:

Linseed oil	30
Glycerine	35
Phthalic anhydride	35

Color pigments may be added in varying amounts. An equal volume of thinner is then added to the base material. Thinner consists of 33% by volume of hydrogenated petroleum naphtha and 67% of ethyl alcohol denatured according to formula S. D. 1. An aluminum bronze powder is finally added to the mixture.

A decal for quick application to T-squares, etc., lists decimal equivalents of fractions, is available for free distribution. U.S.I. will be glad to refer readers to the distributor.

Perspiration-Resisting Lacquer Described

NEW YORK, N. Y.—A lacquer that is said to be perspiration-resisting is described in a patent issued to an inventor here. It is stated that the lacquer is composed of the following ingredients in approximately these proportions:

Nitrocellulose	52 parts
Alkyd resin	18 parts
Dibutyl phthalate	15 parts
Impalpable silica gel	15 parts

These ingredients are combined with suitable volatile solvents. The silica gel is added as a powder.

Dibutyl Phthalate is produced by U.S.I.

Finds Wash-Fast Sizing By Unusual Use of Acetone

HERISAU, Switzerland—An inventor here has found a new way to produce wash-fast sized fabrics that are resistant to shrinking, according to claims made in a recent patent.

Process is said to consist of incorporating in the textile partial condensation products from acetone together with aldehydes and then completing the condensation to the water-insoluble condition. Sizing materials of this type are colorless and odorless, says the inventor.

Gets Better Parasite Control with Butyl Acetate

OAKLAND, Cal.—Parasites can be killed with smaller amounts of spray oil if a small quantity of butyl acetate or amyl acetate is added to the spray, according to a patent issued to an inventor here. The acetate is said to give a selective wetting effect, enabling the spray to adhere more readily to the wax coating on the parasite than to the coating on the plant. The inventor also states that the use of the acetate produces a more lasting deposit of the oil in the spray.

Butyl Acetate and Amyl Acetate are U.S.I. Products

Reveal Best Film-Forming Bases for Airplane Dopes

WASHINGTON, D. C.—The third in a series of reports on an investigation of formulation of airplane dopes was recently issued by the National Bureau of Standards.

This report describes the results of exposure tests carried out on experimental dope formulas, with a view to determining the relation between composition, tautening and weathering qualities.

Cellulose acetopropionate and cellulose acetobutyrate are suggested in the report as promising film-forming bases to replace cellulose nitrate. These bases are said to give relatively non-inflammable dopes. It is also stated that the hydroxyl content of these mixed esters is very important in determining their suitability. The report recommends a hydroxyl content of about 0.2 equivalent for best results.

New Lacquer Seen as Aid To Smoother Concrete Surface

ROCHESTER, N. Y.—Unusually smooth concrete can be cast with the aid of a new lacquer applied to plywood casting forms, it was announced here. When applied to the form with an ordinary calcimine brush, the lacquer produces a hard, water-resistant surface that does not raise the grain of the wood, the announcement continues. When the form is removed, only the faintest impression appears on the concrete, it is said.

Major ingredient of the lacquer is reported to be the same type nitrocellulose as used in photographic films.

TECHNICAL DEVELOPMENTS

Further information on these items may be obtained by writing to U.S.I.

An aluminum paint is now available at a cost that is said to be much lower than previous types. It comes in paste form, and is used according to the maker, by adding plain water. The resulting finish is said to be water- and oil-proof. **(No. 270)**

U S I

Methyl oleate and methyl stearate are said to be now in commercial production. The maker expects the products to have many applications, among which he lists plasticizers, cleaning and polishing compounds, varnish removers, stamping inks, and softeners for leather and rubber. **(No. 271)**

U S I

A wood-treating solution combines volatile and non-volatile toxicants, it is reported. The volatile toxicant provides a high degree of toxicity for the first two years, while the non-volatile ones give long term protection, according to announcement by the manufacturer. **(No. 272)**

U S I

A new treatment for paints is said to result in greater adhesion, elasticity, toughness, and chemical stability. It is claimed that it can be used with all conventional types of paints and enamels, and that it prevents cracking, chipping, and peeling. It should not be used with lacquers and varnishes. **(No. 273)**

U S I

Paint spraying equipment is now provided with forced draft cooling, which is said to increase operating efficiency. In addition, the new units have higher air delivery, greater painting capacity, and greater ease of delivery, according to the manufacturer. **(No. 274)**

U S I

Rust preventive coatings are available in non-drying ("slushing"), hard-drying transparent, and hard-drying aluminum types, according to the manufacturer's announcement. They are said to have a wide range of application. **(No. 275)**

U S I

A floor cleaner is said to be non-alkaline and free from soaps, fats, oils, and solvents. It is further claimed that the product is harmless to the skin and to the surface being cleaned. **(No. 276)**

U S I

A rubber lubricant is non-corrosive to metals and their coatings, the manufacturer states. It is said to consist of colloidal graphite blended with an oil and wetted by glycerol compounds, which also act as stabilizers. **(No. 277)**

U S I

A cleaning unit is said to apply kerosene or other cleaning fluids by the aid of compressed air. According to the manufacturer, it is suitable for cleaning motors, engines, and mechanical parts. **(No. 278)**

U S I

Wax emulsions can be prepared by a new process which will eliminate costly and bulky equipment, it is claimed. It is said that the process employs an atomization principle. **(No. 279)**

U.S.I. INDUSTRIAL CHEMICALS, INC.

60 EAST 42ND ST., N.Y. U.S.I. BRANCHES IN ALL PRINCIPAL CITIES

A SUBSIDIARY OF U. S. INDUSTRIAL ALCOHOL CO.

ALCOHOLS
Amyl Alcohol
Butyl Alcohol
Fusel Oil—Refined
Methanol

Ethyl Alcohol
Anhydraus
Absolute
C. P. 96%
Pure (190 proof)
Specially Denatured
Completely Denatured
U. S. I. (Denatured Alcohol Anti-freeze)
*Super Pyro Anti-freeze
*Solox Proprietary Solvent

***ANSOLS**
Ansol M
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ESTERS, ACETATES
Acetic Ether
Amyl Acetate
Butyl Acetate
Ethyl Acetate

ESTERS, ETHYL
*Diatol
Diethyl Carbonate
Diethyl Oxalate
Ethyl Chlorocarbonate
Ethyl Formate
Ethyl Lactate

*Registered Trade Mark

ESTERS, PHTHALATES
Diamyl Phthalate
Dibutyl Phthalate
Diethyl Phthalate
Dimethyl Phthalate

OTHER ESTERS
Amyl Propionate
Butyl Propionate
Dibutyl Oxalate

INTERMEDIATES
Acetoacetanilid
Acetoacet-o-chloranilid
Acetoacet-o-toluidid
Ethyl Acetoacetate
Sodium Ethyl Oxalacetate

ETHERS
Ethyl Ether
Ethyl Ether Absolute—A.C.S.

OTHER PRODUCTS
Acetone, C.P.
Butyl-mesityl-oxide-oxalate
Cellulose Acetate
Collodions
*Curbay Binders
*Curbay X (Dried Curbay)
*Derex
Ethylene
Methyl Acetone
Nitrocellulose Solutions
Potash, Agricultural
*Vacatone

Perchlorethylene, Zone 4, dms., cl.,, f.o.b. stock points	lb.	.09	—
l.c.l., same basis	lb.	.09½	—

All prices on perchlorethylene are frt. alld. with the exception of zone 4, in which case the prices indicated are based on f.o.b. L. A., Cal., S. F., Cal., Portland, Ore., and Seattle, Wash. Zone 1 includes the following States:—Conn., Md., N. Y., Va., Ky., Me., N. J., Vt., W. Va., Mo., N. H., Tenn., Ind., Ia., Pa., R. I., Ill., Mich., Minn., Wis., Del., Mass., N. C., O., Omaha, Neb., Kansas City, Kansas. Zone 2 includes Ala., Kan., except Kansas City, N. D., Ga., Neb., except Omaha, S. D., Miss., Ark., S. C., La., Okla., and Fla. Zone 3 includes Colo., N. M., Wyo., Texas and Eastern Montana. Zone 4 includes Arizona, Western Montana, Idaho, Ore., Nev., Wash., Utah and Cal.

Peru, balsam, dms.	lb.	1.10	- 1.15
Petrolatum, amber, dms., c.l.	lb.	.04	—
l.c.l.	lb.	.05	—
amber, extra, dms.	lb.	.04½	—
l.c.l.	lb.	.05½	—
veterinary, dms., c.l.	lb.	.03½	—
white, cream, dms., c.l.	lb.	.06	—
l.c.l.	lb.	.07½	—
lily, dms., c.l.	lb.	.07	—
l.c.l.	lb.	.08½	—
snow, dms., c.l.	lb.	.08	—
l.c.l.	lb.	.09½	—
Petroleum (see also, bulk, at wells:—			
California:—			
Alamitos Heights	bbl.	.74	- .80
Athens	bbl.	.84	- 1.00
Belridge	bbl.	.70	- 1.15
Buena Vista Hills	bbl.	.70	- 1.55
Canal-Greely	bbl.	.91	- 1.00
Coalinga	bbl.	.70	- .90
Coyote Hills (West)	bbl.	.75	- 1.15
Dominguez	bbl.	.70	- 1.00
East Coyote	bbl.	.75	- .90
Elk Hills	bbl.	.70	- 1.55
Elwood Terrace, f.o.b. ship.,	bbl.	1.25	- 1.45
El Segundo	bbl.	.80	- 1.21
Huntington Beach	bbl.	.75	- 1.35
Inglewood	bbl.	.70	- 1.27
Kern Front	bbl.	.70	- —
Kern River	bbl.	.70	- —
Kettleman Hills	bbl.	1.12	- 1.40
La Habra	bbl.	.70	- .80
Lakeview	bbl.	.70	- 1.35
Lost Hills	bbl.	.70	- 1.15
McKittrick	bbl.	.70	- —
Midway-Sunset (except Lakeview)	bbl.	.70	- 1.24
Montebello	bbl.	.77	- 1.75
Mt. Poso	bbl.	.70	- —
Mountain View	bbl.	.70	- 1.20
Newhall	bbl.	.70	- —
Orcutt	bbl.	.70	- .90
Olinda Brea	bbl.	.76	- 1.27
Playa del Rey, f.o.b. pipeline	bbl.	.80	- 1.10
Richfield	bbl.	.76	- 1.09
Rosecrans	bbl.	.84	- 1.00
Round Mt.	bbl.	.70	- —
Santa Fe Springs	bbl.	.75	- 1.49
Santa Maria	bbl.	.85	- .97
Santa Paula	bbl.	.70	- 1.01
Seal Beach	bbl.	.79	- 1.10
Signal Hill	bbl.	.80	- 1.21
Torrence	bbl.	.80	- 1.09
Wheeler Ridge	bbl.	.76	- .99
Whittier	bbl.	.76	- .99
Wilmington	bbl.	.75	- 1.21
Canada:—			
Oil Springs	bbl.	1.27	- —
Petrolia	bbl.	1.90	- —
Central West:—			
Illinois	bbl.	.53	- 1.05
Lima	bbl.	.90	- —
Western Michigan	bbl.	.88	- —
Princeton	bbl.	1.05	- —
East Texas	bbl.	1.10	- —
Gulf Coast:—			
Barber's Hill	bbl.	.79	- 1.16
Batson	bbl.	.74	- 1.04
Dayton	bbl.	.95	- 1.41
Esperson	bbl.	.79	- 1.16
Goose Creek	bbl.	.86	- 1.28
Hull	bbl.	74	
Humble	bbl.	.86	- 1.16
Liberty	bbl.	79	
Markham	bbl.	.86	- 1.29
Orange	bbl.	.79	- 1.18
Pettus	bbl.	1.29	-
Pierce Junction	bbl.	.95	- 1.41
Refugio (incl Greta Taft Saxet)	bbl.	.91	- 1.33
Saratoga	bbl	74	
Sour Lake	bbl.	.86	- 1.16
Spindle Top	bbl.	74	
Sugarland	bbl.	.86	- 1.28
West Columbia	bbl.	.79	- 1.28
Kentucky, Tennessee:—			
Big Sandy River	bbl.	1.02	- —
Kentucky River	bbl.	1.02	- —
Western Kentucky (Owensboro)	bbl.	1.19	- —
Louisiana, Arkansas:—			
Bull Bayou	bbl.	.73	- 1.05
Caddo	bbl.	.98	- 1.00
Cameron Meadows	bbl.	1.13	- —
Choctaw	bbl.	.74	- 1.20
Cotton Valley	bbl.	.73	- 1.05
Darrow	bbl.	.74	- 1.20
De Soto	bbl.	.73	- 1.05
El Dorado	bbl	72	- 1.00
Haynesville	bbl.	.73	- 1.05
Homer	bbl.	.73	- 1.05
Iowa	bbl.	.74	- 1.13
Lockport	bbl.	.74	- 1.13
Magnolia	bbl.	.73	- 1.05
Miller County	bbl.	.73	- 1.05
Pine Island	bbl.	.75	- 1.06
Rainbow	bbl.	.78	- 1.09
Rodessa	bbl.	.73	- 1.05
Smackover	bbl.	.73	- —
Tepetate	bbl.	1.08	- —
Urania	bbl.	.89	- —
Mexico, f.o.b. terminals Mexican port—based on contract:—			
Panuco	bbl.	No prices	
Tuxpan	bbl.	No prices	
Midcontinent:—			
North Texas	bbl.	.51	- 1.10
Oklahoma-Kansas	bbl.	.55	- 1.10
Pennsylvania, Ohio, West Virginia:—			
Bradford-Allegany	bbl.	2.40	- —
Corning	bbl.	1.17	- —
Pennsylvania grades—			
Buckeye lines	bbl.	1.70	- —
Eureka lines	bbl.	1.99	- —
N. Y. Transit lines	bbl.	2.40	- —
S. W. Penn. lines	bbl.	2.05	- —
Lower Ohio		Na	
tional Transit lines	bbl.	2.28	- 2.40
Rocky Mountain:—			
Big Muddy	bbl.	.96	- —
Canon City-Florence	bbl.	.90	- —
Cat Creek	bbl.	1.10	- —
Dutton Creek	bbl.	.86	- 1.10
Elk Basin	bbl.	.90	- —
Fort Collins-Wellington	bbl.	.81	- 1.05
Frannie, light	bbl.	.85	- —
Grass Creek, light	bbl.	.90	- —
Ilex	bbl.	.92	- .96
Lance Creek	bbl.	.77	- —
Sander	bbl.	.51½	- —
Midway	bbl.	.86	- 1.10
Rock Creek	bbl.	1.00	- —
Salt Creek	bbl.	.86	- 1.10
Sunburst	bbl.	1.20	- —
Torchlight	bbl	1.00	- —

Petroleum, crude, bulk, at wells, South Central and Southwestern Texas:—			
Bee County	bbl.	.73	- 1.03
Cleveland-Liberty	bbl.	1.14	- —
Conroe	bbl.	1.27	- —
Darst Creek	bbl.	.96	- —
Hardin-Liberty	bbl.	1.00	- 1.03
Luling	bbl.	.87	- —
Potter Springs	bbl.	.90	
Mirando, (incl. Duval)	bbl.	.86	- 1.28
Nueces County	bbl.	.75	- .98
Salt Flat	bbl.	.96	- —
Tomball	bbl.	.95	- 1.40
Van	bbl.	.92	- —
West Beaumont	bbl.	.86	- 1.28
Texas Panhandle:—			
Carson-Hutchinson counties,	bbl.	.67	- .91
Gray County	bbl.	.72	- .96
West Texas:—			
Artesia, N. M.	bbl.	.81	.88
Crane	bbl.	.53	- .95
Crockett	bbl	.53	- .95
Ector	bbl.	.53	- .95
Eddy (N. M.)	bbl.	.71	
Howard	bbl.	.68	- .95
Jackson, N. M.	bbl.	.61	- .86
Lea, N. M.	bbl.	.53	- .95
Maljamar, N. M.	bbl.	.61	- .88
Mitchell	bbl.	.68	- .93
Pecos	bbl.	.65	- .87
Upton	bbl.	.53	- .95
Winkler	bbl.	.53	- .95
Ether, 30-60° dms., c.l., G.S.	gal.	.14½	—
l.c.l., G.S.	gal.	.25½	—
tanks, G.S.	gal.	.13½	—
35-60°, dms., l.c.l., G.S.	gal.	.30½	—
40-78°, dms., c.l., G.S.	gal.	.14½	—
l.c.l., G.S.	gal.	.25½	—
tanks, G.S.	gal.	.13½	—
laboratory grade, dms., c.l., G.S.	gal.	.14½	—
c.l., G.S.	gal.	.25½	—
10-gal. lots, G.S.	gal.	.50½	—
lacquer, diluent, at refinery:—			
California, 100 l.b.p., 200 e.p., tanks, delvd. Los Angeles	gal.	.11	—
San Francisco	gal.	.11½	—
f.o.b Richmond	gal.	.12	—
Willbridge, Ore., Pt. Wells, Wash	gal	19	
East Coast, tanks	gal.	.09½	.10
Group 3, tanks	gal.	.07½	.08
Naphthenates at refinery—			
East Coast, tanks	gal.	.09	- .10½
Group 3, tanks	gal.	.06¾	- .07
tankwagon, Boston, ex tax	gal.	.13½	—
Bridgeport	gal	13½	—
Chicago, inc. 4c. tax	gal.	.18	- —
Decatur, inc. 4c. tax	gal.	.1910	- —
Des Moines, inc. 4c. tax	gal.	.1890	- —
Evansville, inc. ex tax	gal.	.15	- .16
Milwaukee inc. 5c tax	gal.	.2030	- —
Minneapolis-St. Paul inc. 5c. tax	gal.	.20½	—
Newark, ex tax	gal.	.10¾	—
New York, ex tax	gal	.10¾	—
Omaha, ex tax	gal.	.1490	- .1590
Oklahoma City, ex tax	gal.	.16½	—
Philadelphia, ex tax	gal.	.12	- —
St Louis, inc. 1c. tax	gal.	.15¼	—
Syracuse, 150 gals.	gal.	.14½	—
smaller lots, galv. drums	gal.	.16	- —
milk cans	gal	.21	- —
high-solvency, aromatic, No. 1 over 70% arom., tanks, f.o.b. Bayway	gal.	.16	- —
2, over 90% arom. basis	gal.	.17	- —
3 tanks, f.o.b Bayonne, N.J.	gal.	.13	- —
30, same basis	gal.	.14½	- —
40 same basis	gal.	.14½	- —
v.m.&p. at refinery:—			
California, 46.5, 254 l.b.p., 350 e.p., tanks, f.o.b. El Segundo	gal.	.11	- —
Richmond	gal	.11½	- —
Willbridge,Ore. Pt. Wells, Wash	gal.	.12	- —
54-57, 190 l.b.p., 310 e.p., tanks, dlvd., Los Angeles,	gal.	.10	- —
San Francisco	gal.	.10½	- —
Portland, Seattle	gal	11	- —
East Coast, tanks	gal.	.09½	—
Group 3, tanks	gal.	.06¾	- .07
tankwagon, Boston, ex tax	gal.	.14½	—
Chicago, inc. 4c. tax.	gal.	.17	- —
Des Moines, inc. 4c. tax.	gal.	.1890	- —
Decatur, inc., 4c. tax.	gal.	.1910	- —
Evansville, Ind., ex tax.	gal.	.1520	- .1620
Milwaukee, inc. 5c. tax.	gal.	.2030	- —
Minneapolis-St. Paul inc. 5c. tax	gal	20	- —
Newark, ex tax	gal.	.11½	—
New York, ex tax	gal.	.10½	—
Omaha ex tax	gal.	.1490	- .1590
Philadelphia, ex tax	gal.	.13	- —
St. Louis, inc. 1c. tax.	gal.	.1570	- —
solvent, rubber, at refinery, East Coast, tanks	gal.	.09½	—
Group 3, tight, 120 l.b.p., 250 e.p., tanks	gal.	.06¾	- .07
standard, 180 l.b.p., 320 e.p., tanks	gal.	.06¾	- .07
Standard (CR 3-33) at refinery—			
East Coast, tanks	gal.	.08¾	- .09½
Group 3, tanks	gal.	.06¾	- .08½
tankwagon, Boston, ex tax	gal.	.14	—
Chicago, inc. 4c. tax.	gal.	.1640	—
Decatur, inc. 4c. tax.	gal.	.1860	—
Des Moines, inc. 4c. tax.	gal.	.1840	—
Evansville, Ind., ex tax.	gal.	.14	- .15
Milwaukee, inc. 5c. tax.	gal.	.1980	—
Minneapolis-St. Paul inc. 5c. tax.	gal.	.1820	—
Newark, ex tax	gal.	.09½	—
New Orleans ex tax.	gal	11	—
New York, ex tax	gall	.09½	—
Omaha	gal.	.1360	- .14½
Philadelphia, ex tax	gal.	.13	—
St. Louis, inc. 1c. tax.	gal.	.1340	—
Tulsa, ex tax	gal.	.10½	- .11½
thinners, at refinery:—			
California, 34, 235 l.b.p., 290 e.p., low sulfur, 6,000 gal tanks or transport trucks, f.o.b. Los Angeles	gal.	.15	- —
Portland, Ore.	gal.	.16	- —
Richmond	gal.	.14½	- —
Seattle, Wash	gal.	.16½	- —
44, 311 l.b.p., 385 e.p., tanks, f.o.b. Point Wells, Wash.; Willbridge, Ore.	gal.	.10½	- —
Richmond	gal.	.10	- —
Southern Calif.	gal.	.09½	- —
200 l.b.p., 300 e.p., tanks, f.o.b El Segundo	gal.	.11	- —
Portland, Ore.	gal.	.12	- —
Richmond	gal.	.11½	- —
Seattle, Wash.	gal.	.12	- —
East Coast, 43-47, tanks	gal.	.08¾	- .09½
47-49, tanks	gal.	.10½	- —
New Jersey, tanks	gal.	.09	- —
Group 3, tanks	gal.	.05½	- .06
tankwagon, tax included:—			
Albany	gal.	.13½	—

Petroleum, thinners, tankwagons, tax included, Baltimore (100 gals.)	gal.	.14	—
Baltimore (100 gals.)	gal.	.14	—
25-99 gals.	gal.	.16	—
Boston	gal.	.13½	—
Bound Brook, North boy, N. J.	gal.	.13½	—
Bridgeport, Conn.	gal.	.11½	—
Buffalo	gal.	.15½	—
Camden, N. J.	gal.	.10	- .11½
Chicago	gal.	.1670	—
Decatur	gal.	.1810	—
Des Moines	gal.	.1790	—
Evansville, Ind.	gal.	.1420	- .1520
Milwaukee	gal.	.1930	—
Minneapolis-St. Paul	gal.	.19½	—
Newark	gal.	.09½	—
New York (200 gals.)	gal.	.09½	—
Omaha	gal.	.1360	- .1460
Philadelphia	gal.	.12½	—
Pittsburgh	gal.	.11½	- .13½
Providence	gal.	.12	—
Rochester	gal.	.12½	—
St. Louis	gal.	.1470	—
Syracuse	gal.	.13	—
Trenton	gal.	.09½	—
Wilmington, Del.	gal.	.12½	—
Phenobarbital, 5-lb. bots.	lb.	2.95	—
bots. or cns., 100 lbs., spot or contract	lb.	3.60	—
25-lb. cns.	lb.	3.85	—
Phenol, USP, dms., c.l., works, frt. equald.	lb.	.13	—
l.c.l., same basis	lb.	.13¾	—
under 1,000 lbs.	lb.	.14¾	—
tanks, works	lb.	.12	—
Phenolphthalein, USP, bbls., dms., 2,000-lb. lots	lb.	.85	—
bbls., dms., kegs, 100-250 lbs.,	lb.	.87	- .89
yellow, fib., dms., 2,000-lb. lots	lb.	.80	—
100-lb. fib., dms.	lb.	.82	—
25-lb. dms.	lb.	.87	—
50-lb. kgs.	lb.	.84	—
Phenyl chloride, dms.	lb.	.17	—
Phenylacetaldehyde, bots.	lb.	2.10	- 2.50
Dimethylacetate, cns.	lb.	14.50	-15.00
Phenyl ethyl acetate, cns.	lb.	2.45	- 2.50
Phenylethylphenyl acetate, bots.,	lb.	7.90	-15.00
Phenylhydrazine, base, CP, bots.,	lb.	4.00	—
Hydrochloride, CP, bots., works	lb.	4.00	—
commercial, kgs., works	lb.	1.50	—
pure, bbls., works	lb.	2.25	—
Phloroglucinol, CP, tins, works	lb.	20.00	-22.00
tech., tins, works	lb.	15.00	-16.50
Phosphate rock, Fla., high-grade, hard, 77% basis, 76% min., bulk, mines, long ton.		4.35	—
Phosphate rock, Fla., land pebble, 68% min., bulk, mines, long ton.		1.90	—
land pebble, 70% min., bulk, mines, long ton.		2.15	—
72% min., bulk, mines, long ton.		2.40	—
75% basis, 74% min., bulk mines, long ton.		2.90	—
Tenn., 72% bulk, mines, long ton.		4.50	—
75% bulk, mines, long ton.		5.50	—
Phosphorus, red, cs.	lb.	.40	- .44
yellow, dms.	lb.	.18	- .20
cases	lb.	.23	- .26
Oxychloride, cyls.	lb.	.16	- .18
Pentoxide, dms., c.l., works,	lb.	.11	- .13
l.c.l., dms., wks.	lb.	.13	- .14
Sesquisulphide, cs.	lb.	.38	- .43
Trichloride, cyls.	lb.	.15	- .16
Phthalamide, bbls., works, tons.	lb.	.35	—
single bbls., works	lb.	.40	—
kgs., works	lb.	.45	- .50
Phthalic anhydride, bbls., c.l., works, frt. alld. E. of Miss. R.	lb.	.14½	—
l.c.l. same basis	lb.	.16½	—
Pichi leaves, bgs.	lb.	.20	- .22
Pilocarpine hydrochloride, bots., vis.	oz.	4.00	- 4.25
Nitrate, bots., vis.	oz.	3.90	- 4.15
Pimento, bgs.	lb.	.11½	- .12
Pinkroot, bls.	lb.	.36	- .37
Pitch, Burgundy (see B).			
Coaltar, 160° m.p., bbls., c.l., works	ton.	19.00	—
tel	ton.	22.00	—
Hardwood, 1-time, dms., c.l., dlvd. Akron	ton.	23.75	-24.00
Linseed, dms.	lb.	.05	- .05¼
Petroleum (see Asphaltum, Mexican, Texas).			
Pine, bbls.	bbl.	6.00	- 6.25
Plaster of paris (see Gypsum).			
Pleurisy root, Southern, bls.	lb.	.12	- .13
Podophyllin, dms., dlvd., E. of Miss.	lb.	4.50	- 4.70
Poke root, bls.	lb.	.07	- .07½
Pomegranate bark, bgs.	lb.	.53	- .54
Root bark, bgs.	lb.	.49	- .50
Poppy flowers, red, bls.	lb.	1.00	- 1.15
Seed, Dutch, bgs.	lb.	.20	- .20½
Potash abietate	lb.	.08	—
Acetate, tech., bbls., dlvd.	lb.	.26	—
kgs., dlvd.	lb.	.28	—
USP, bbls., 250 lbs.	lb.	.28	—
kgs., 100 lbs.	lb.	.30	—
cns., 25 lbs.	lb.	.33	—
Arsenite, USP, solut., cbys., 100 lbs.	lb.	.11	—
Bicarbonate, USP, cryst., bbls., 300 lbs.	lb.	.12	—
kgs., 100 lbs.	lb.	.15	—
gran., bbls., 250 lbs.	lb.	.17	—
kgs., 100 lbs.	lb.	.15	—
Bichromate, spot, c.l., works, 6 casks or 10 bbls., or over, works	lb.	.17	—
5 casks or 9 bbls., or less, works	lb.	.09	—
Bromide, USP, gran., bbls., 500 lbs.	lb.	.09¼	—
fib., dms., 100 lbs.	lb.	.31	—
Carbonate, calc., dms., c.l., works	lb.	.32	—
l.c.l., same basis	lb.	.06½	—
hydrated, 83-85%, bbls., c.l., works	lb.	.06¾	—
l.c.l., same basis	lb.	.05½	—
liquid, dms., c.l., dlvd.	lb.	.05¾	—
l.c.l., dms.	lb.	.03	—
tanks, dlvd.	lb.	.03¼	—
USP, gran., bbls., 325 lbs.	lb.	.0287¼	—
powd., bbls., 325 lbs.	lb.	.13½	—
kgs., 100 lbs.	lb.	.19	—
Caustic, flake, 88-92%, dom., c.l., works	lb.	.21	—
l.c.l.	lb.	.07	—
import, dms.	lb.	.07¼	- .07½
liquid, 45% basis, dms.	lb.	No prices	
tanks	lb.	.03½	- .03¾
solid, 88-92%, dom., dms., c.l., works	lb.	.02½	—
l.c.l.	lb.	.06¼	—
import, dms.	lb.	.06½	- .06¾
Chlorate, cryst., kgs.	lb.	No prices	
gran., kgs.	lb.	.09½	Nom.
powd., kgs.	lb.	.12	Nom.
Chloride, tech., 93%, cryst., bgs.,	kgs.	.06½	Nom.
Chromate, kgs.	lb.	.04	Nom.
Citrate, USP, gran., bbls., 250 lbs.	lb.	.24	- .27
kgs., 100 lbs.	lb.	.33½	—
cns., 50 lbs.	lb.	.34½	—
cns., 25 lbs.	lb.	.35½	—
Cyanide, cns., dms.	lb.	.37½	—
	lb.	No prices	

Perchlorethylene—Quince Seed

Potash, cyanide, gold, 11% gold, bots, works	oz.	14.20	-14.45
Glycerophosphate, 75% sol., dms., 1,000-lb. lots	lb.	1.00	—
100-lb. lots	lb.	1.10	—
50-lb. lots, cbys. or cns.	lb.	1.15	—
25-lb. lots, cns.	lb.	1.25	—
Guaiacolsulphonate, fib., dms., 100-lb. lots	lb.	1.60	- 1.65
cns., 25 lbs.	lb.	1.75	—
Hydroxide, USP, sticks, cns., 100 lbs.	lb.	.30½	- .32
Hypophosphite, cns., 100 lbs.,	lb.	.72	—
25 to 50 lbs.	lb.	.75	—
Iodate, bots., 5 lbs.	lb.	3.31	- 3.35
cns., 25 lbs.	lb.	3.20	—
Iodide, bbls., 250 lbs.	lb.	1.35	—
bots., or cns.	lb.	1.44	- 1.70
dms.	lb.	1.35	- 1.38
Kainit, 20% K_2O, bulk, c.l.f. ports	ton.	14.50	—
bgs.	ton.	16.50	—
Manure salt, dom., run of mine, approx. 30%, K_2O, bulk, c.l.f. ports	unit-ton.	.58½	—
Import, 30%, K_2O, bulk, shipt.	ton.	17.55	—
bgs.	ton.	19.55	—
Metabisulphite, kgs.	lb.	.18	Nom.
Muriate, dom., all strengths, min., 50% K_2O, bulk, unit-ton.		.53½	—
Import, all strengths, min. 80% KCl, basis 50% K_2O, bulk, c.l.f. ports	ton.	26.75	—
Potash muriate prices in bags are $1 per ton higher than bulk price.			
Oxalate, pure, cryst., kgs.	lb.	.30	- .31
tech., bbls.	lb.	.25	- .26
Nitrate, crude, bgs., c.l.f. ports,	ton.	55.00	Nom.
Perchlorate, kgs., works	lb.	.09	- .10½
Permanganate, tech., dms.	lb.	.18½	- .19
Prussiate, red, bbls.	lb.	.38	- .45
Yellow, bbls.	lb.	.15	- .16
Ricinoleate, tech., bbls.	lb.	.13	—
Silicate alkaline, lump, bgs.,	lb.	.07	—
Sulphate, NF, cryst., bbls., 400 lbs.	lb.	.13	—
kgs., 100 lbs.	lb.	.15	—
powd., bbls., 350 lbs.	lb.	.14	—
kgs., 100 lbs.	lb.	.16	—
tech., 90-95%, min. 90%, bgs., shipt., c.l.f. ports	ton.	40.00	—
Xanthate, dms., c.l.	lb.	.13	—
l.c.l.	lb.	.13½	—
Potash-magnesia sulphate, 48-53%, min. 48%, bgs., shipt.,	ton.	24.75	—
Potash-titanium oxalate, kgs.	lb.	.35	- .40
Prickly ash bark, bis.	lb.	.19	- .20
Berries, bgs.	lb.	.40	- .45
Prince's pine herb, bls.	lb.	.15	- .17
Propane, tanks, Group 3	gal.	.03¾	- .04
Psyllium seed (see Flaxseed).			
Pulsatilla, bls.	lb.	.28	- .30
Pumice stone, Italian, Amer.-grd., 4F, 3F, 2F, 1½F, and coarser, bbls., 3 or over, works	lb.	.03½	—
less than 3, works	lb.	.04½	—
F and 1, bbls., 3 or over, works	lb.	.04	—
less than 3, works	lb.	.04½	—
3 or over, works	lb.	.04½	—
Ital.-grd., ogs., c.l., shipt. ex dock, N. Y.	ton.	39.00	Nom.
l.c.l., 5-29 tons, ex whse.,	ton.	44.00	Nom.
1,000-10,000 lbs., ex whse.	ton.	46.00	Nom.
2 bgs., to 1,000 lbs., ex whse.	ton.	48.00	Nom.
single bgs., ex whse.	ton.	60.00	Nom.
Pumpkin seed, bgs.	lb.	.10	- .11
Purple lake (see Red).			
Putty, com'l, dms.	100 lbs.	6.00	—
linseed oil, raw, dms.	100 lbs.	4.50	—
refined, dms.	100 lbs.	5.00	—
standard, dms.	100 lbs.	3.95	—
Pyrethrum concentrate, liq. (20 to 1), basis 2.4% pyrethrin (Seil test) 55-gal. dms. (incl.) frt. alld., or dlvd., on 15 gls., or more, standard brand, odorless	gal.	7.15	- 7.60
basis (80 to 1) 3.6% pyrethrin, 55-gal. dms. (incl.) frt. alld., or dlvd., on 15 gals., or ore standard brand, odorless	gal.	10.65	-11.00
Pyrethrum, flowers, coarse, grnd. (g.d.p.) Japan, bgs., frt. alld., 15 tons or over	lb.	.33	- .36
fine powd. Japan, bbls., ton lots frt. alld.	lb.	.35	- .37
Pyridin, denaturing, dms.	gal.	1.62	—
refd., 2°, dms.	lb.	.80	—
Pyrites, Spanish, bulk, c.l.f. Atl. ports	unit-ton.	.12-13	Nom.
Pyrocatechin, CP, cryst., works, fib., dms., tins	lb.	2.15	- 2.40
resublimed, fib. dms., tins	lb.	4.00	—
Pyrophyllite, standard, 200 mesh., c.l. mines	ton.	9.00	—
325 mesh, same basis	ton.	12.00	—
No. 3, 200 mesh c.l. mines	ton.	7.50	—
325 mesh, same basis	ton.	10.50	—
Pyroxylin scrap, amber, cs., works	lb.	.13	—
black, cs., works	lb.	.10	—
China white, ivory, cs., works,	lb.	.13	—
dense white, cs., works	lb.	.10	—
gray, cs., works	lb.	.08	—
mixed, mottles, opaque, cs., works	lb.	.04	—
shell-demi, cs., works	lb.	.12	—
translucent pastels, cs., works	lb.	.10	—
transparent, cs., works	lb.	.20	—
colors, cs., works	lb.	.12	—
shavings, amber, cs., works	lb.	.16	—
colors, mixed, cs., works	lb.	.10	—
white, cs., works	lb.	.15	—

Q

Quassia chips, bls.	lb.	.05	- .06
Quebracho extract, liquid, 35% tan, bbls., works	lb.	.03¾	—
tanks, works	lb.	.03¼	—
solid, 63%, bgs., c.l., ex dock, plus duty	lb.	.04¾	—
clarified, 64%, bgs., c.l., same basis	lb.	.04¾	—
Queen of the meadow leaves, bgs.	lb.	.07	- .08
Root, bgs.	lb.	.10	- .11
Quercitron, extract, liquid, 51°, bbls.	lb.	.07½	- .08½
solid, dms.	lb.	.10	- .15½
Quicksilver, dom., flasks, (76 lbs. net, dlvd., N.Y. flasks		140.00	-142.00
European, flasks, (76 lbs. net) in bond, flasks		106.00	- —
Quince seed, bgs.	lb.	.90	- 1.10

Quinidine—Soda Phosphate

Quinidine, cryst., small, cns..oz. .90 - —
large, cns.....oz. .98 - —
powd., precip., cns.....oz. .91 - —
Sulphate, cns.....oz. .67 - —
Subject to surcharge of 4c. per oz.; see note under Quinine.
Quinine, 100 ozs., cns.....oz. .76 - —
Acetate, cns.....oz. .99 - —
Arsenate, cns.....oz. .92 - —
Arsenite, cns.....oz. 1.01 - —
Bisulphate, cns.....oz. .54 - —
Citrate, cns.....oz. .72 - —
Dihydrobromide, bots.....oz. .75 - —
Dihydrochloride, bots.....oz. .75 - —
Ethylcarbonate, cns.....oz. .75 - —
Ferrocyanide, cns.....oz. 1.01 - —
Formate, cns.....oz. .94 - —
Glycerophosphate, cns.....oz. 1.14 - —
Hydrochloride, cns.....oz. .68 - —
Hydrochlorosulphate, cns....oz. .75 - —
Hydroiodide, cns.....oz. .99 - —
Hypophosphite, cns.....oz. .99 - —
Phosphate, cns.....oz. .82 - —
Salicylate, cns.....oz. .73 - —
Sulphate, USP, X, cns.....oz. .54 - —
USP, XI, cns.....oz. .61 - —
Sulphocarbolate, cns.....oz. .97 - —
Tannate, cns.....oz. .57 - —
Tartrate, cns.....oz. .97 - —
Valerate, cns.....oz. .93 - —

Quinine buyers must pay a surcharge of 4c. per oz. to cover present war risk insurance, ocean freight rates, and additional expenses over the cost of usual business. Changes in these controlling factors will be reflected in the surcharge invoiced.

Quinine-urea hydrochloride, cns.oz. .75 - —
Subject to surcharge of 4c. per oz.; see note under Quinine.

R

R, salt, dry, bbls.....lb. .55 - —
paste, dms.....lb. .52 - —
Rapeseed, Belgian, bgs.....lb. .07½- .08
Dutch, black, bgs.....lb. .08 - .08½
red, bgs.....lb. .08 - .08½
Japanese, bgs.....lb. .06¾- .07
Raspberries, dried, bls.....lb. .65 - .70
Red, alizarin lake, bbls., dlvd. N. of Tenn. and N.C., E. of Miss. R., including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis..lb. 1.10 - 1.90
Red, Alizarin lake prices are ½c. higher dlvd. Ala., Fla., Ga., Ia., (Shreveport, 1¼c.) Miss., N. C., S. C., Tenn., Tex. (Dallas, Ft. Worth, 1¼c.; El Paso, 2c.), Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; ½c. higher dlvd. Pac. Coast for Denver, Pueblo, Salt Lake City, Wichita, prices are equalized with Chicago
Cadmium, lithopone, deep shade, bbls., ton lots, works, frt. alld..lb. .90 - —
smaller lots, same basis, lb. .95 - —
kgs., ton lots, same basis, lb. .95 - —
smaller lots, same basis, lb. 1.00 - —
light shade, bbls., ton lots, same basis..lb. .75 - —
smaller lots, same basis, lb. .80 - —
kgs., ton lots, same basis, lb. .80 - —
smaller lots, same basis, lb. .85 - —
light-medium shade, bbls., ton lots, same basis..lb. .80 - —
smaller lots, same basis, lb. .85 - —
kgs., ton lots, same basis, lb. .85 - —
smaller lots, same basis, lb. .90 - —
maroon shades, bbls., ton lots, same basis..lb. 1.00 - —
smaller lots, same basis, lb. 1.05 - —
kgs., ton lots, same basis, lb. 1.05 - —
smaller lots, same basis, lb. 1.10 - —
medium shade, bbls., ton lots, same basis..lb. .85 - —
smaller lots, same basis, lb. .90 - —
kgs., ton lots, same basis, lb. .90 - —
smaller lots, same basis, lb. .95 - —
Selenide, bbls., dark, works, lb. 2.50 - —
light, works.....lb. 2.25 - —
orange, bbls., 100-lb. lots, works..lb. 1.50 - —
Carmine, 40 1-lb. cns., 500 lbs. lb. 5.00 - —
dms., 500-lb. lots.....lb. 4.85 - —
100-lb. lots .....lb. 4.95 - —
Crocus martis (see Red, purple oxide).
Eosin toner, bbls.....lb. 1.50 - 1.60
Indian, pure, bbls., f.o.b. Bethlehem, Easton, E. St. Louis, N. Y...08¾- —
80%-85%, bbls., same basis.lb. .07¼- —
Iron oxide (see Red oxide).
Lake C toner, bbls., same basis alizarin lake, contracts.lb. 1.10 - —
open order .....lb. 1.15 - —
Lithol toner, bbls., same basis, alizarin, lake, contrs...lb. .62 - —
open order.....lb. .67 - —
Rose lake, bbls.....lb. .20 - .25
Pink, bbls.....lb. .15 - .20
Lithol-rubine toner, bbls., same basis alizarin lake..lb. 1.35 - —
Maroon lake, 25%, kgs., same basis alizarin lake contracts. lb. .40 - —
Oxide (see Red, purple oxide).
Mercury oxide, tech., dom., bbls. lb. 2.41 - —
Metallic, bbls., Pa., works...lb. .02 - —
Orange, Persian (see O).
Oxide, pure, bbls., c.l., works, lb. .08½- —
l.c.l., works .....lb. .09½- —
shell, dom.. cs., works.....lb. .12 - —
reduced, 85% copperas oxide, bbls., l.c.l., f.o.b. Bethlehem, Easton, E. St. Louis, New Castle, N. Y.....lb. .08¼- —
80% copperas oxide, bbls., same basis..lb. .07¾- —
Para, toner, concent., kegs, same basis alizarin lake, contracts..lb. .75 - —
open order .....lb. .80 - —
Persian, Gulf, oxide, bbls., l.c.l., f.o.b. Bethlehem, Easton, N.Y.lb. .04½- .04¾
ex whse., Chicago, St. Louis..lb. .05¾- —
San Fran., Los Ang., Portland, Seattle..lb. .05 - —
Phloxin toner (see Red, Eosin toner)
Phosphotungstic rhodamine Y, kgs..lb. 3.90 - —
Red, purple lake, kgs.....lb. .60 - 1.00
Oxide, bbls., f.o.b. Bethlehem, Easton, E. St. Louis..lb. .08 - —
Toner, kgs.....lb. 1.50 - 2.00
Scarlet ink toner, kgs., same basis alizarin lake..lb. .50 - —
Lake, kgs., same basis alizarin lake..lb. .25 - .30
Spanish, oxide, bbls. f.o.b. N. Y..lb. .03¾- .0390
Toluidine toner, kgs., same basis alizarin lake..lb. 1.20 - —
Tuscan, bbls., f.o.b. N. Y., E. St. Louis..lb. .11 - .40
Venetian, bbls., works.....lb. .0220- —
10%, bbls., works.....lb. .0245- —
15%, bbls., works.....lb. .0255- —
20%, bbls., works.....lb. .02¾- —
25%, bbls., works.....lb. .03 - —
30%, bbls., works.....lb. .03¼- —
35%, bbls., works.....lb. .0360- —
40%, bbls., works.....lb. .04 - —
Vermilion, Amer., bbls., same basis alizarin lake.....lb. .15 - —
quicksilver, bbls., 5 tons..lb. No prices
smaller lots.....lb. 2.70 - 2.79
Red dyes are listed under Dyes.
Red precipitate, N. F., powd., fib. dms., 50 lbs. or more..lb. 2.66 - —
Red saunders wood, ground, bbls., lb. .12 - .17
Resorcinol, tech., dms., works.lb. .75 - .80
USP, cryst., bbls., works...lb. 1.50 - 1.55
Rhatany root, bgs.....lb. .15 - .16
Rhodinol, bots.....lb. 5.55 -10.90
Rhubarb, root, cs.....lb. .50 - .51
powd., bbls., kgs.....lb. .55 - .60
Rochelle salt, cryst., bbls., 5,000 lbs., 1 shipm't..lb. .20¾- —
smaller lots.....lb. .21¼- —
powd., bbls., 5,000 lbs., 1 shipt..lb. .19¾- —
smaller lots.....lb. .20¼- —
Rose flowers, pals, bls.....lb. .60 - .75
red, bls.....lb. 3.50 - 3.55
Rosemary, flowers, bls.....lb. .30 - .45
leaves, bls.....lb. .07 - .12
Rosin, gum, bbls., ex dock, 280 lbs. 5.25 - —
D, bbls.....280 lbs. 5.35 - —
E, bbls.....280 lbs. 6.35 - —
F, bbls.....280 lbs. 6.45 - —
G, bbls.....280 lbs. 6.65 - —
H, bbls.....280 lbs. 6.70 - —
I, bbls.....280 lbs. 6.87½- —
K, bbls.....280 lbs. 6.87½- —
M, bbls.....280 lbs. 6.90 - —
N, bbls.....280 lbs. 6.93 - —
W. G., bbls.....280 lbs. 7.15 - —
W. W., bbls.....280 lbs. 7.60 - —
X, bbls.....280 lbs. 7.60 - —
Rosin, wood, bbls.....280 lbs. 4.35 - 6.00
Rottenstone, dom., bgs., c.l., f.o.b. mines..ton.25.50 Nom.
l.c.l., f.o.b. mines.....ton.37.50 Nom.
Rue, import, lump, bbls.....lb. .14 Nom.
powd., bbls.....lb. .08½- .10
Rue, bls.....lb. .30 - .35

S

Sabadilla seed, powd., bbls....lb. .22 - .23
Saccharin, dms., 100 lbs.....lb. 1.45 - —
cns., 25 lbs.....lb. 1.48 - 1.50
Safflower, bls.....lb. .45 - .46
Saffron, Mexican, bls.....lb. .42 - .43
Spanish, tins.....lb.42.00 -44.00
Sage, Dalmatian, stemless.....lb. .10 - .10½
garden, bls.....lb. .12 - .12½
Safrol, cns.....lb. .72 - .77
dms.....lb. .70 - .75
Sago flour, bgs.....lb. .04 Nom.
Salicin, bots., 5 lbs.....lb. 7.04 - —
cns., 25 lbs.....lb. 7.00 - —
Salol, gran., bbls., 200 lbs.....lb. .90 - —
bxs., 25 lbs.....lb. .93 - —
kgs., 100 lbs.....lb. .90 - —
powd., fib. dms., 25 lbs.....lb. 1.03 - —
kgs., 100 lbs.....lb. 1.00 - —
Salt, rock, bgs., dlvd., N. Y..ton.13.20 -13.80
l.c.l., bgs., dlvd., N. Y..ton.15.00 -15.60
vacuum, common, fine, bgs.,c.l. dlvd., N.Y..ton.15.30 - —
l.c.l., dlvd., N.Y.....ton.16.60 -19.70
Saltcake, grd., dom., bbls., works, ton.19.00 Nom.
bulk, works.....ton.15.00 Nom.
import, bulk, c.i.f.....ton.15.00 Nom.
Chrome (see Chrome cake).
Saltpeter, dbl., refined, cryst., 10-20 tons, bbls..100 lbs. 7.50 - 8.25
1-9 tons .....100 lbs. 7.65 - 8.40
less than ton lots..100 lbs. 7.90 - 8.65
gran., bbls., 10-20 tons, 100 lbs. 6.50 - —
1-9 tons .....100 lbs. 6.65 - —
less than ton lots..100 lbs. 6.90 - —
powd., bbls., 10-20 tons.100 lbs. 7.50 - —
1-9 tons .....100 lbs. 7.65 - —
less than ton lots..100 lbs. 7.90 - —
Santonin, cryst., cns.....kilo.124.00 -155.00
Saponin, crude, cns.....lb. 1.45 - —
purified, bots., 5 lbs.....lb. 1.65 - —
cns., 25 lbs. .....lb. 1.50 - —
Sarsaparilla root, Honduras,bls.lb. .40 - .41
Mexican, bls.....lb. .19 - .20
Sassafras, bark, ord., bls.....lb. .13 - .14
select, bls.....lb. .18 - .20
Savory, bbls. .....lb. .15 - .16
Saw palmetto berries, bgs.....lb. .08 - .09
Scammony root, bgs.....lb. .07 - .09
resin., lump, cns.....lb. .85 - —
powd., bxs.....lb. .90 - —
Schaeffer's salt, bgs.....lb. .46 - —
Seidlitz mixture, bbls., 5,000 lbs., 1 shipm't..lb. .16½- —
smaller lots .....lb. .16⅝- —
kegs, 5,000 lbs., 1 shipm't..lb. .16⅝- —
smaller lots .....lb. .17⅛- —
Selenium, pwd., A, 10-lb. tins..lb. 2.00 - —
100-lb. cases .....lb. 1.75 - —
Senega root, bls.....lb. .85 - .86
Senna, leaves, Alexandria, bls..lb. No prices
siftings, bls.....lb. .13 - .15
Tinnevelly, No. 1, bls.....lb. .13 - .14
2 bls.....lb. .11 - .12
3 bls.....lb. .09 - .10
powd., bbls., bxs.....lb. .13 - .14
Pods bls.....lb. .10 - .13
Serpentaria root, bls.....lb. .76 - .77
Shellac, bleached, bonedry, bbls., f.o.b., N.Y..lb. .24 Nom.
dlvd. Boston .....lb. .24½ Nom.
Chicago .....lb. .24¾ Nom.
Pacific Coast.....lb. .27 Nom.
refd., bbls., f.o.b., N.Y....lb. .30 Nom.
dlvd. Boston.....lb. .30½ Nom.
Chicago .....lb. .30¾ Nom.
Pacific Coast.....lb. .33 Nom.
Garnet, bgs.....lb. .16 Nom.
Orange, D.C., VSO., Diamond I, cases..lb. .25 Nom.
Superfine, bgs., f.o.b. Bost., N. Y..lb. .17 Nom.
dlvd. Chicago.....lb. .17½ Nom.
Pacific Coast.....lb. .20 Nom.
T.N., bgs., f.o.b. Bost., N. Y., lb. .16 Nom.
dlvd., Chicago.....lb. .16½ Nom.
Pacific Coast.....lb. .19 Nom.
Varnish, Metro., area, orange, 5-lb. cut., bbls..gal. 1.05 - 1.10
4½-lb. cut, bbls.....gal. 1.00 - 1.05
4-lb. cut, bbls.....gal. .95 - 1.00
white, 5-lb. cut, bbls.....gal. 1.15 - 1.20
4½-lb. cut, bbls.....gal. 1.10 - 1.15
4-lb. cut, bbls.....lb. 1.05 - 1.10
Silica, amorph., dry-grd., 90-97%, 325 mesh, bgs. c.l.,works.ton.17.00 - —
l.c.l., 2½ tons,works.ton.19.00 - —
smaller lots, works.ton.20.00 - —
Silica, amorph., wet-grd., 95-97%, 325 mesh, bgs., c.l., works, ton.19.00 - —
l.c.l., 2½ tons, works.ton.21.00 - —
smaller lots, works.ton.25.00 - —
400 mesh, bgs., c.l., works, ton.35.00 - —
l.c.l., 2½ tons, works.ton.36.50 - —
smaller lots, works.ton.38.00 - —
96-98%, 325 mesh, bgs., c.l., works..ton.20.00 - —
l.c.l., 2½ tons, works.ton.21.50 - —
smaller lots, works.ton.23.00 - —
90%, 325 mesh bgs., c.l., works..ton.22.00 - —
bgs., l.c.l., 2½ tons, works, ton.25.50 - —
smaller lots.....ton.27.00 - —
hard-quarts, 140 mesh, bgs., c.l., works.....ton.11.00 - —
l.c.l., works.....ton.16.00 - —
Silver bullion.....oz. .34¾- —
Govt., purchase, dom., metal. oz. .7111- —
Govt. purchase, foreign metal oz. .35 - —
cyanide, cns., 2,500 ozs.....oz. No prices
1,000 ozs.....oz. No prices
500 ozs.....oz. No prices
80 to 100 ozs.....oz. No prices
Nitrate, vis.....oz. .27 - —
Nucleinate, bots., cns., 480 oz., lots..oz. .30 - .31
Proteinate, bots., cns., 480 oz., lots..oz. .29 - .30
Simarubra bark, bls.....lb. .33 - .45
Skatol, bots.....lb.75.00 -80.00
Skullcap, Eastern, bls.....lb. .23 - .24
Western, bls.....lb. .14 - .15
Skunk cabbage root, bls.....lb. .11 - .12
Slate flour, bgs., c.l., works..ton. 9.00 - —
l.c.l., works.....ton.10.00 -15.00
Sloe berries, bgs.....lb. .12 - .13
Smalt, black, extra velvet, cnts., lb. .05 - .08
Blue, cts.....lb. .07 - .08¼
Snakeroot, Canada, bls.....lb. .24 - .26
Soapbark, bls.....lb. .22 - .23
crushed, bls., bbls.....lb. .26 - .27
cut, bls., bbls.....lb. .40 Nom.
powd., bbls.....lb. .32 - .33
Soda, acetate, anhyd., dms., dlvd. lb. .08½- .10
flake, gran., powd., 60%, dms., c.l., dlvd..lb. .04 - —
l.c.l., dlvd..lb. .04½- .05
powd., 90%, dms., c.l., dlvd., lb. .06 - —
l.c.l., dlvd.....lb. .06¾- —
Alginate, dms., bbls., works, lb. .71 - .95
Antimoniate, bbls.....lb. .15 - .15½
Arsenate, dms., dealers, c.l., works..lb. .08 - —
l.c.l., dms., works.....lb. .08½- —
Arsenite, dry, gray, dms., c.l., dealers' works..lb. .07½- .09½
l.c.l., dms., works.....lb. .08 - .10
white, dms., c.l., dealers' works..lb. .09 - .11
l.c.l., dms., works.....lb. .09½- .11½
Soda arsenite, dry, gray, prices are ¾c. per pound higher in Chicago; 1c. per pound higher in Houston. Tex., and Colorado. White prices are 1c. per pound higher in Tex. and Colo.
Ash, dense, 58%, bgs., c.l., works..100 lbs. 1.10 - —
l.c.l., Zone 1.....100 lbs. 2.13 - —
2 .....100 lbs. 2.28 - —
3 .....100 lbs. 2.33 - —
4 .....100 lbs. 2.93 - —
bbls., c.l., works..100 lbs. 1.35 - —
l.c.l., Zone 1.....100 lbs. 2.35 - —
2 .....100 lbs. 2.50 - —
3 .....100 lbs. 2.75 - —
4 .....100 lbs. 3.15 - —
smk. c.l., works....100 lbs. .95 - —
extra light, 58%, bgs., c.l., 100 lbs. 1.05 - 1.08
l.c.l., Zone 1.....100 lbs. 2.08 - —
2 .....100 lbs. 2.23 - —
3 .....100 lbs. 2.48 - —
4 .....100 lbs. 2.88 - —
bbls., c.l., Zone 1....100 lbs. 1.45 - —
2 .....100 lbs. 2.60 - —
3 .....100 lbs. 2.80 - —
4 .....100 lbs. 3.25 - —
l.c.l., Zone 1....100 lbs. 2.45 - —
bulk, c.l.....100 lbs. .90 - —
light, 58%, bgs., c.l., works, 100 lbs. 1.05 - 1.08
l.c.l., Zone 1.....100 lbs. 2.08 - —
2 .....100 lbs. 2.23 - —
3 .....100 lbs. 2.48 - —
4 .....100 lbs. 2.88 - —
bbls., c.l., works....100 lbs. 1.35 - —
l.c.l., Zone 1.....100 lbs. 2.35 - —
2 .....100 lbs. 2.50 - —
3 .....100 lbs. 2.75 - —
4 .....100 lbs. 3.15 - —
bulk, c.l.....100 lbs. .90 - —
Soda ash l.c.l. prices are per 100 lbs. f.o.b. recognized warehouse points and include delivery in any quantity to customer's sidewalk within recognized local trucking distance of seller's warehouse. The sales zones are:—Zone 1. E. of Miss. R., but including Davenport and St. Louis, to S bndry. of Va. and Ky., N. E. States (in Me., N. H., Vt.), special local prices apply for shipts. to various counties: Zone 2, Ala., Fla., Ga., Iowa (except Davenport), Kan. (incl. Wichita), Minn., Miss., Mo. (except St. Louis), N. C., Omaha, S. C., Tenn.; Zone 3, Ark., Kan. (W. of Wichita), La., Neb. (except Omaha), N. D., Okla., S. D., Tex. (except El Paso); Zone 4, Ariz., Colo., El Paso (Tex.), Idaho, Mont., Nev., N. M., Spokane, Utah, Wyo.; Zone 5, Calif., Ore., Wash. (except Spokane).
Benzoate, tech., bbls., 4,000 lbs. or more..lb. .30 - —
1,000 to 3,900 lbs.....lb. .40 - —
900 lbs. or less.....lb. .48 - —
USP, bbls., 4,000 or more..lb. .46 - —
1,000 to 3,900 lbs.....lb. .47 - —
900 lbs or less.....lb. .50 - —
dms., 4,000 lbs., or more..lb. .47 - .48
1,000 to 3,900 lbs.....lb. .48 - .49
900 lbs. or less.....lb. .51 - .52
Bicarbonate, tech., bbls., c.l., works..100 lbs. 1.70 - —
l.c.l. .....100 lbs. 2.05 - —
bgs., c.l.....100 lbs. 1.55 - 1.60
l.c.l.....100 lbs. 1.90 - 1.95
USP, gran., bbls., c.l., works, 100 lbs. 2.25 - —
powd., bbls., c.l., works, 100 lbs. 1.85 - —
l.c.l., dlvd. N. Y...100 lbs. 2.51 - —
kgs., c.l.....100 lbs. 2.10 - —
l.c.l., dlvd. N Y..100 lbs. 2.76 - —
Bichromate, spot, c.l., works.lb. .06¾- —
l.c.l., 6 cks. or 10 bbls. or over, works..lb. .07 - —
3 cks, or 9 bbls. or less, works..lb. .07¼- —
Bifluoride, bbls.....lb. .11¼ - .13
Bisulphite, powd., bbls., c.l., bbls., wks..100 lbs. 3.30 - 3.55
l.c.l. works.....100 lbs. 3.50 - 3.66
solution, 29 deg., bbls., c.l., works..100 lbs. 1.30 - —
l.c.l., bbls., works..100 lbs. 1.55 - —
66 deg., bbls., c.l., works, 100 lbs. 1.35 - —
l.c.l., bbls., works.100 lbs. 1.60 - —
35 degs., bbls., c.l., works, 100 lbs. 1.40 - —
l.c.l., bbls., works.100 lb. 1.65 - —
Soda, bisulphite, solut., 44 deg., bbls., works..100 lbs. 1.55 - —
l.c.l., bbls., works.100 lbs. 1.80 - —
Bromide, USP, gran., bbls., 500 lbs..lb. .31 - —
fiber dms., 100 lbs.....lb. .32 - —
Cacodylate, bbls., 5 lbs.....lb. 5.81 - —
jars, 25 lbs.....lb. 5.50 - —
Carbonate (see Soda ash, soda monohydrated, soda sal)
Caustic, flake, 76%, powd., ammon. process, bbls., c.l., works..100 lbs. 2.95 - —
dms., c.l., works..100 lbs. 2.70 - —
l.c.l., Zone 1....100 lbs. 3.55 - 4.00
2 .....100 lbs. 3.70 - 5.00
3 .....100 lbs. 3.95 - 5.30
4 .....100 lbs. 4.35 - 5.70
electro process, dms., c.l., works..100 lbs. 2.70 - —
l.c.l. same zone prices as ammonia process.
liquid, 47-49% buyers' tanks, works..100 lbs. 1.92½- —
seller's tanks, works, 100 lbs. 1.98 - —
76%, buyer's tanks, works, 100 lbs. 1.97½- —
seller's tanks, works, 100 lbs. 2.00 - —
solid, 76%, ammon. process, dms., c.l., works, 100 lbs. 2.30 - —
l.c.l., Zone 1....100 lbs. 3.15 - —
2 .....100 lbs. 3.30 - —
3 .....100 lbs. 3.55 - —
electro process, dms., c.l., works..100 lbs. 2.30 - —
l.c.l., same zone prices as ammon process.
Caustic soda l.c.l. prices are on the same basis as those for soda ash. The sales zones are also the same.
Chlorate, dom., cryst., bgs c.l., works..lb. .06¼- —
l.c.l., works.....lb. .06½- —
powd., bgs., c.l., works..lb. .06½- —
l.c.l., works.....lb. .07 - .08¼
Chromate, spot, c.l., works..lb. .08¼- —
l.c.l., 6 cks., 10 bbls. or over, works..lb. .08¾- —
smaller quantities.....lb. .08¾- —
Citrate, U.S.P., VIII, gran. bbls., 225-lb. lots..lb. .18¼- —
cns., 50-lb. lots.....lb. .20½- —
25-lb. lots.....lb. .22½- .23¼
kgs., 100-lb. lots.....lb. .19¼- —
USP XI, gran., bbls., 250-lb. lots..lb. .24 - —
boxes, 50-lb. lots.....lb. .26 - —
cns., 25-lb. lots.....lb. .28 - .29
kgs., 100-lb. lots.....lb. .26 - —
powd., bbls., 250-lb. lots..lb. .24¼- —
boxes, 50-lb. lots.....lb. .26¼- —
cns., 25-lb. lots.....lb. .29¼- —
kgs., 100-lbs. lots.....lb. .25¼- —
Cyanide, 96-98%, dom., dms..lb. .14 - .15
import, 90%, cs.....lb. .12¾- .13¾
Cyanide, gold, 46% gold, bots., works..oz.15.85 -17.10
Diacetate, 38-39% acidity, bbls., dlvd..lb. .09 - —
Fluoride, white, 90%, bbls., c.l., f.o.b. Phila..lb. .07½- —
l.c.l., 10 or over, same basis..lb. .07¾- —
5-9, same basis.....lb. .08¼- —
1-4, same basis.....lb. .08¾- —
98%, bbls., c.l., same basis, lb. .07½- —
l.c.l., 10 or over, same basis..lb. .08 - —
5-9, same basis.....lb. .08½- —
1-4, same basis.....lb. .08¾- —
Soda fluoride prices at Los Angeles are f.a.s. Phila
Glycerophosphate, N.F., cryst., bbls., 1,000-lb. lots..lb. 1.10 - —
smaller lots.....lb. 1.25 - —
cns., 25 lbs.....lb. 1.50 - —
powd., bbls., 1,000-lb. lots, lb. 1.15 - —
smaller lots.....lb. 1.30 - —
cns., 25 lbs.....lb. 1.55 - —
Hydrosulphite, dms.....lb. .16 - .17
Hydroxide, USP, sticks, cns., 100-lb. lots..lb. .20½- .23
Hypophosphite, N.F., cns., 100-lb. lots..lb. .67 - —
Hyposulphite, cryst., large, bgs., c.l., wks., frt. equal'd..100 lbs. 2.25 - —
bbls., same basis..100 lbs. 2.45 - —
l.c.l., bgs., wks., frt. equal'd..100 lbs. 2.50 - —
bbls., same basis..100 lbs. 2.70 - —
pea bags., c.l., works..100 lbs. 2.60 - —
bbls., works.....100 lbs. 2.80 - —
dms., works.....100 lbs. 3.10 - —
5,000 lbs. and over, bgs., wks..100 lbs. 2.75 - 2.90
bbls., wks.....100 lbs. 2.95 - 3.20
dms., wks.....100 lbs. 3.25 - 3.60
2,500 to 5,000 lbs., bgs., wks..100 lbs. 2.85 - 3.10
bbls., wks.....100 lbs. 3.05 - 3.30
dms., wks.....100 lbs. 3.35 - 3.60
pea, 500 to 2,500 lbs., bgs., works..100 lbs. 3.10 - 3.25
bbls., wks.....100 lbs. 3.30 - 3.55
dms., wks.....100 lbs. 3.60 - 3.80
less than 500 lbs., bgs., wks. 100 lbs. 3.70 - 3.95
bbls., wks.....100 lbs. 3.90 - 4.15
dms., wks.....100 lbs. 4.20 - 4.45
Iodate, jars.....lb. 5.02 - 5.07
Iodide, jars.....lb. 2.30 - —
bots.....lb. 2.41 - 2.67
Mandelate, bots., 5 lbs.....lb. 3.30 - —
fib. dms., 100-lb. lots.....lb. 3.05 - —
smaller lots .....lb. 3.15 - 3.30
Metanilate, kgs .....lb. .41 Nom.
Metasilicate, ground, dms., c.l., works..100 lbs. 3.15 - —
l.c.l., works.....100 lbs. 3.40 - —
cryst., dms., c.l.....100 lbs. 2.90 - —
gran., bbls., c.l., wks..100 lbs. 2.20 - —
Molybdate, kgs., wks.....lb. .60 - —
less kgs.....lb. .65 - —
Monohydrated, bbls.....100 lbs. 2.60 - —
works .....100 lbs. 2.30 - —
Naphthionate, bbls.....lb. .52 - —
Nitrate, crude, c.l., 100-lb. bgs., dlvd., f.o.b. cars producing point or ports, rail or boat shipment, ton.29.00 - —
200-lb. bgs., same basis.ton.28.30 - —
bulk, same basis.....ton.27.00 - —
rfd., gran., bbls., 10 tons, 100 lbs. 2.50 - —
1-9 tons.....100 lbs. 2.65 - —
smaller lots.....100 lbs. 2.90 - —
powd., bbls., ton lots.100 lbs. 5.65 - —
smaller lots.....100 lbs. 5.90 - —
Nitrite, 96-98%, dom., bbls., c.l., wks., frt. equalized..lb. .06¾- —
c.l., West Coast, f.o.b. ports..lb. .09 - —
l.c.l. .....lb. .09¼- .11¼
Soda nitrite l.c.l price range represents delivery at various points.
Oxalate, neut., bbls.....lb. .09 - —
kgs.....lb. .10 - .11
Perborate, N.F., bbls., c.l., works..lb. .14¾- —
l.c.l., works.....lb. .15¼- —
Phosphate, dibasic, anhyd., bgs., c.l., works..100 lbs. 5.15 - —
l.c.l., works.....100 lbs. 6.10 - —
bbls., c.l., works...100 lbs. 5.35 - —
l.c.l., works.....100 lbs. 6.30 - —

Soda, phosphate dibasic, anhyd., cryst., tech., bgs., c.l., works..100 lbs. 2.10 - —
..c.l., works.....100 lbs. 2.50 - —
bbls., c.l., works...100 lbs. 2.30 - —
l.c.l., works.....100 lbs. 2.70 - —
monoacetic, anhyd., bgs., c.l., works..100 lbs. 7.25 - —
l.c.l., works.....100 lbs. 8.00 - —
bbls., c.l., works..100 lbs. 7.45 - —
l.c.l., works.....100 lbs. 8.20 -
tribasic, bgs., c.l., works...lb. 2.25 - —
l.c.l., works.....100 lbs. 2.65 - —
bbls., c.l., works...100 lbs. 2.45 - —
l.c.l., works.....100 lbs. 2.85 - —
kgs., c.l., works...100 lbs. 2.95 - —
l.c.l., works.....100 lbs. 3.35 - —
USP (dibasic), bbls., works, lb. .09 - .1
dried, bbls., dms., works.lb. .11¼- .14
Picramate, kgs.....lb. .08 - —
Prussiate, yellow, bbls., 10,000 lbs. or more..lb. .10½- —
contracts.....lb. .09 - —
smaller lots.....lb. .10¾- —
contracts.....lb. .09¾- —
Pyrophosphate, anhy., bgs., c.l., wks., frt. equal'd.100 lbs. 5.10 - —
l.c.l., same basis..100 lbs. 5.35 - 5.90
bbls., c.l., wks., frt. equalized..100 lbs. 5.30 - —
l.c.l., same basis..100 lbs. 5.55 - 5.80
Ricinoleate, tech., bbls.....lb. .13 - —
dal, bgs., dlvd., N. Y....100 lbs. 1.20 - —
works .....100 lbs. 1.00 - —
bbls., dlvd. N. Y.....100 lbs. 1.30 - —
works .....100 lbs. 1.10 - —
Salicylate, bxs. .....lb. .52 - —
Sesquisilicate, dms., c.l., works, 100 lbs. 3.00 - —
20 dms., and up, dlvd. N.Y.C. 100 lbs. 3.65 - —
5-19 dms .....100 lbs. 4.10 - —
1-4 dms. .....100 lbs. 4.20 - —
Silicate, 40° turbid., dms., c.l., works..100 lbs. .80 - —
l.c.l., 5 or more, works, 100 lbs. 1.05 - —
1-4, works.....100 lbs. 1.20 - —
52°, dms., c.l., works, 100 lbs. 1.40 - —
l.c.l., 5 or more, works, 100 lbs. 1.65 - —
1-4, works.....100 lbs. 1.80 - —
Silicofluoride, dom., bbls....lb. .04¼ Nom.
import, bbls.....lb. .05½- Nom.
Stannate, dms.....lb. No prices
Stearate, lump, powd., bbls., works lb. .19 - .24
Sulphate, anhyd., bgs., bbls., c.l., works..100 lbs. 1.45 - 1.65
5 tons or over, works, 100 lbs. 1.70 - 1.90
less than 5 tons, works, 100 lbs. 1.95 - 2.15
cryst. (see Glauber's salt).
Sulphide, cryst., bbls., c.l., works..100 lbs. 2.25 - —
l.c.l., 5 tons or over, dlvd., 100 lbs. 2.75 - —
less than 5 tons, dlvd., 100 lbs. 3.00 - —
solid, bbls., c.l., works, 100 lbs. 3.00 - —
l.c.l., 5 tons or over, dlvd., 100 lbs. 3.50 - —
less than 5 tons, dlvd., 100 lbs. 3.75 - —
Sulphite, cryst., bgs., 100 lbs., works..lb. 2.10 - 2.35
bbls. .....100 lbs. 2.30 - 2.55
powd., bbls., c.l.....100 lbs. 5.25 - —
l.c.l., 5 or more...100 lbs. 5.50 - —
1-4 .....100 lbs. 6.00 - —
Sulphocarbolate, cs.....lb. .27 - .38
Sulphocyanide, dms., cns....lb. .28 - .47
Sulphoricinoleate, bbls.....lb. .12 - —
Thiosulphate (see hyposulphite).
Tungstate, CP, kgs.....lb. No prices
tech., kgs.....lb. No prices
Solvent, high-flash, dms., works, frt., equald..gal. .31 - —
tanks, same basis.....gal. .26 - —
naphtha, solvent, dms., works, gal. .31 - —
tanks, E. of Omaha, frt., alld., gal. .26 - —
W. Coast, f.o.b., Minnequa, Colo..gal. .26 - —
Sorbitol, com'l, solut., dms., c.l., works..lb. .15½- —
l.c.l. .....lb. .16 - —
Soybean protein, bgs., c.l., works, lb. .14½- —
l.c.l., works.....lb. .14½- —
Sparteine sulphate, cns.....oz. 1.50 - 1.60
Spearmint leaves, bls.....lb. .20 - .22
Spikenard root, bls.....lb. .26 - .27
Spruce extract, reg., bbls., c.l., works..lb. .01⅝- —
tanks, works .....lb. .01½- —
powd., super, bgs., c.l., works, lb. .04 - —
super, bbls., c.l., works.....lb. .01⅞- —
tanks, works .....lb. .01⅝- —
Squawvine leaves, bls.....lb. .14 - .15
Squill, red, bls.....lb. .20 - .21
white, bls.....lb. .12 - .13
powd., bbls., bxs.....lb. .17 - .20
St. Ignatius beans, bgs.....lb. .49 - .51
St. John's Bread, edible, bls., lb. .12 - .13
inedible, bls.....lb. .08½- .09
Starch, com., pearl, bgs., f.o.b., Chicago..100 lbs. 2.45 - —
dlvd., N. Y.....100 lbs. 2.80 - —
powd., bgs., f.o.b. Chicago, 100 lbs. 2.55 - —
dlvd., N. Y.....100 lbs. 2.90 - —
Potato, dom., bgs.....lb. .06 - .06¾
import, bgs.....lb. .06 Nom.
Rice, bbls.....lb. .07¼ Nom.
Wheat, thick, boil, bgs.....lb. .05¼ Nom.
Starch, iodide, bots.....lb. 1.87 - —
Staveacre seed, bgs.....lb. .25 - .30
Stearin, oleo, bbls.....lb. .08 - .08¼
Stillingia root, bls.....lb. .07½- .08
Stoneroot, bls.....lb. .07½- .08
Storax, cs. .....lb. .70 - .75
Stramonium leaves, bls.....lb. .17 - .18
Seed, bgs.....lb. .20 - .21
Strontium bromide, fib, dms...lb. .57 - .58
kgs., 150 lbs.....lb. .55 - —
Carbonate, N.F., IV, 250-lb. bbls..lb. .30 - —
25-lb. bxs.....lb. .35 - —
100-lb. kgs.....lb. .32 - —
tech., 99-100 pc., precip., bbls., lb. .24 Nom.
Chloride, bbls.....lb. .18 Nom.
Iodide, bots., 5 lbs.....lb. 3.00 - —
jars, 25 lbs. .....lb. 3.06 - —
Nitrate, dom., bbls., c.l., works, lb. .07¾- —
25 bbls. and over.....lb. .08¼- —
1-24 bbls. and over.....lb. .08¾- —
Strophanthus seed, Kombe, bgs.lb. 3.40 - 3.50
Styralyl acetate, bots.....lb. 6.75 - 7.00
Strychnine, cryst., cns., 100-oz. lots..oz. .60 - —
powd., cns., 100-oz. lots...oz. .50 - —
Acetate, 25-oz. cns., 100-oz. lots..oz. .79 - —
Arsenate, 25-oz., cns., 100-oz. lots..oz. .82 - —
Arsenite, 25-oz. cns., 100-oz. lots..oz. .79 - —
Glycerophosphate, 25-oz. cns., 100-oz. lots..oz. .80 - —
Hydrochloride, 25-oz. cns., 100-oz. lots..oz. .79 - —
Hypophosphite, 25-oz. cns., 100-oz. lots..oz. .91 - —
Strychnine, nitrate, 25-oz. cns., 100-oz. lots..oz. .73 - —
Phosphate, 25-oz. cns., 100-oz. lots..oz. .80 - —
Sulphate, cryst., cns., 100-oz. lots..oz. .50 - —
powd., cns., 100-oz. lots, oz. .40 - —
Sucrose octa-acetate, denat. grade, bbls., l.c.l., works..lb. .45 - —
tech., bbls., l.c.l., works....lb. .40 - —
Sugar coloring, bbls.....gal. .65 - 1.05
Milk, bbls., c.l.....lb. .16 - —
l.c.l., 10 or over.....lb. .17 - —
less than 10.....lb. .18 - —
Sulfanilamide, 5 lbs., bots.....lb. 1.65 - —
fib., dms., 1,000 lbs., 1 delivery. lb. 1.25 - —
100 lbs.....lb. 1.30 - —
Sulphonethylmethane, kgs.....lb. 6.75 - 6.80
Sulphonmethane, kgs.....lb. 5.25 - 5.30
Sulphur, crude, bulk, f.o.b. cars, mines, contracts....long-ton.16.00 - —
f.o.b. steamers, Gulf ports, contract..long ton.17.50 - —
ex vessels, Atlantic seaboard, contract..long ton.20.50 - —
Puget Sound, Columbia River, and British Columbia parts, bulk, contract..long ton.22.00 - —
flowers, bgs., c.l., works, 100 lbs. 3.00 - —
bbls., works.....100 lbs. 2.25 - —
l.c.l., bgs., works...100 lbs. 3.25 - 3.75
bbls., works.....100 lbs. 3.70 - 4.10
refined, broken, bgs., c.l., works, 100 lbs. 2.15 - —
bbls. works.....100 lbs. 2.30 - —
l.c.l., bgs., works....100 lbs. 2.50 - 2.90
bbls., works .....100 lbs. 2.65 - 2.85
Sulphur, refined, flour, comm'l, bgs., c.l., works, 100 lbs. 1.60 - —
bbls., c.l., works...100 lbs. 1.80 -
l.c.l., bgs, works....100 lbs. 1.95 - 1.96
bbls., works.....100 lbs. 2.30 - 2.70
extra fine, bgs., c.l., works, 100 lbs. 2.25 - —
bbls., works.....100 lbs. 2.30 - —
l.c.l., bgs., works....100 lbs. 2.20 - 2.60
bbls., works.....100 lbs. 2.55 - 2.95
heavy, bgs., c.l, works.100 lbs. 2.55 - —
bbls., works....100 lbs. 2.90 - —
l.c.l., bgs., works, 100 lbs. 2.90 - 2.95
bbls., works....100 lbs. 3.25 - 3.65
light, bgs., c.l., works— 100 lbs. 2.03 - —
bbls., works....100 lbs. 3.05
l.c.l., bgs., works..100 lbs. 3.00 - 3.40
bbls., works....100 lbs. 3.30 - 3.45
rock, virgin, bbls., c.l., works, 100 lbs. 2.15 - —
l.c.l., bbls., works.100 lbs. 2.50 - 2.90
roll, bgs., c.l.....100 lbs. 2.35 - —
bbls., works....100 lbs. 2.50 - —
l.c.l., bgs., works..100 lbs. 2.70 - 3.10
bbls., works....100 lbs. 2.85 - 3.25
rubber maker's, com'l., 99½%, c.l. frt., alld..100 lbs. 2.00 - —
bbls., same basis, c.l. 100 lbs. 2.35 - —
refined, 100%, bgs., c.l., frt. alld..100 lbs. 2.35 - —
bbls., same basis.100 lbs. 2.70 - —
Chloride, 55-gal. dms., c.l...lb. .03 - —
l.c.l., dms., works....lb. .04 - —
10-gal. dms., c.l.....lb. .07 - —
l.c.l. .....lb. .08 - —
Dioxide, liq., com'l, cyls., works..lb. .07 - .08
multi-unit cars, works..lb. .04¼ .07
Sulphur, dioxide, liq., com'l., tanks, works..lb. .04 - .06
refrigeration, cyls., works..lb. .16 - .40
multi-unit cars, works..lb. .07½- .10
Iodide bots., jars.....lb. 3.90 - 4.05
Precipitated, USP, bbls.....lb. .17 - .22
Sumac, grd., Sicilian, f.a.s...ton.83.00 - —
leaf, bls., f.a.s.....ton.90.00 - —
Extract, 42°, bbls.....lb. .06 - —
51°, bbls.....lb. .07 - —
stainless, bbls.....lb. .07½- .09¼
berries, bgs.....lb. .05½- .06
Sunflower seed, Calif., large, bgs., lb. .06½- .07
medium, bgs. .....lb. .06 - .06½
poultry, bgs.....lb. .04½- .04½
Superphosphate, guaranteed, 16%, bulk, f.o.b. cars, boat, Balto. ton. 8.00 - —
run-of-pile, basis 16%, bulk, same basis..ton. 7.50 - —
triple, 40-48%, a.p.a. bulk, f.o.b. Balto..unit-ton. .70 - —

Soda Phosphate—Talc.

T

Talc., dom., Calif., 1, bgs., c.l., mills..ton.20.00 - —
2, bgs., c.l., mills.....ton.17.00 - —
N. Y., fibrous, 93-94%, 328 mesh, bgs., c.l., mills, ton.14.00 -16.00
l.c.l., mills.....ton.16.00 -18.00
96-98%, 325 c.l., mills...ton.15.00 -17.00
l.c.l., mills.....ton.17.00 -19.00
98-99½%, 325 mesh, bgs., c.l., mills..ton.15.25 -17.25
l.c.l., mills.....ton.17.25 -19.25

Your naked eye can't see the improvements in the COLUMBIA line for 1940 but the microscope and test tube reveal them even to the most skeptical. Realizing that a multitude of commodities owe their high quality in large measure to the quality of the COLUMBIA Alkalies used in their manufacture, we take our job seriously, making improvement our constant objective. Recent contributing factors which make the new COLUMBIA Alkalies and Liquid Chlorine better than ever include new developments of research, — aided by the completion of one of the finest and most complete laboratories in the Industry, — some important new production equipment, improved methods of packing and handling in transit, stiffer standards of progressive inspection, and an air-tight system of control.

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That work is definitely to reduce the chalking and increase the durability of white exterior house paints and of all types of synthetic, oleoresinous and nitro cellulose enamels where the necessity exists for use of a high-hiding white pigment.

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TRADE MARK

TITANOX-A-NC practically eliminates chalking in enamels. It has the highest chalking resistance of all the TITANOX-A's. Being lower in color value than the others, it is not applicable to extremely white coatings.

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Sole Sales Agent
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WHITENESS, BRIGHTNESS, DURABILITY result from the use of TITANOX

Talc, dom., fibrous, 90.85-99.95%, 325 mesh.., bgs., c.l., mills..ton.17.00 -19.00
coarse, off color, bgs. c.l., mills..ton.11.00 -13.00
Ohio, flake type, grd., bgs., c.l., mills..ton.21.00 - —
l.c.l., mills.....ton.24.50 - —
Vermont, bgs., c.l., mills, ton.14.00 - —
l.c.l., ex whse.....ton.25.00 - —
Canad., bgs., c.l., mills....ton.11.50 -13.00
French, high-grade, bgs., l.c.l., ex whse..ton. No price
ordinary, bgs., c.l., ex dock, arrival..ton. No price
l.c.l., ex whse.....ton. No price
Italian, 1, bgs., ex dock, arrival, ton.67.00 Nom.
ex whse.....ton.87.00 Nom.
2, bgs., ex dock, arrival.ton.64.00 Nom.
Tallow, animal, edible.....lb. .06¾ Nom.
extra, loose.....lb. .06 Nom.
special, loose.....lb. .05¾ Nom.
vegetable, ship, cs.....lb. No prices.
sulphonated, 35% (24% fat), dms., c.l..lb. No prices
l.c.l.....lb. No prices
50% (43% fat), dms., c.l., lb. No prices
l.c.l.....lb. No prices
50% (48% fat), dms., c.l..lb. No prices
l.c.l.....lb. No prices
Tamarind, W. I., bbls.....lb. .12 - .13
kegs .....keg. 8.50 - 9.00
Tankage, animal, dom., grd., 9% ammon., 10% b.p.l., bulk..unit-ton. 3.25 & .10
unground feeding, 9-11% ammon.. 15-20% b.p.l., bulk..unit-ton. 3.75 & .10
10-11% ammon., 15% b.p.l., bulk, Chicago..unit-ton. 3.25 & .10
high-grade feeding, bulk, Chicago..unit-ton. 3.75 & .10
import, S. Amer., 10-12% ammon., 15% b.p.l., bulk, c.i.f., ports, Oct. shipt., unit-ton. 4.00 & .10
Tansy leaves, bls.....lb. .23 - .24
Tapioca flour, bgs.....lb. .03 - .05
Tar acid oil, 15%, dms., c.l., works..gal. .21 - —
l.c.l., same basis.....gal. .23 - —
25%, dms., c.l., works....gal. .25 - —
l.c.l., same basis.....gal. .27 - —
Tar, pine, retort, dms., c.l., dlvd. E. cities..gal. .28 - —
ports .....gal. .27 - —
l.c.l. .....gal. .28 - —
tanks, dlvd. E. cities....gal. .22 - —
Tarragon herb, bgs.....lb. .60 - .65
Tartar emetic, tech., fine gran., bbls., 5 or more...lb. .34¾ Nom.
less than 5.....lb. .35 Nom.
powd., bbls., 5 or more..lb. .34¾ Nom.
less than 5.....lb. .35 Nom.
USP, powd., bbls.....lb. .40 Nom.
Terebene, cans.....lb. .70 - .75
Terpinyl acetate, cns.....lb. .77 - .80
Terpin hydrate, kgs.....lb. .60 - .65
Terpineol, CP, cns.....lb. .28 - —
dms.....lb. .25 - —
Terpineol, alpha, denat. grade, dms., c.l., wks., net wgt...lb. .17 - —
Terra alba (see Gypsum).
Tetrachloroethane, dms., wks..lb. .08 - .08½
Tetrachloroethylene, CP, dms..lb. .21½- — tech. (see Perchloroethylene).
Tetralin, dms.....lb. .12 - —
Tetrasodium pyrophosphate (see soda pyrophosphate).
Thallium sulphate, 99% pure, bots., works..lb. 5.00 - 7.00
Theobromine, cns.....lb. 2.10 Nom.
Sodiosalicylate, cns.....lb. 1.85 - —
dms. .....lb. 1.70 - —
5-lb. bots.....lb. 2.01 - —
Thiocarbanilide, dms.....lb. .24 - —
Thorium, nitrate, cs., works..lb. 2.00 - —
Thyme, French, bls.....lb. .20 - .22
Thymol, dms., 100 lbs.....lb. 1.50 - —
cns., 25 lbs.....lb. 1.55 - 1.60
Iodide, kgs., 50 lbs.....lb. 3.25 - 3.30
25 lbs.....lb. 3.35 - 3.40
Timbo root, powd., 4% rotenone, bbls..lb. .18 - .26
5% rotenone, bbls.....lb. .22 - .30
Tin chloride (ous), anhyd.....lb. No prices
Crystals, bbls., kgs.....lb. No prices
Metals, Straits.....lb. .53 Nom.
Oxide, bbls. .....lb. No prices
Tetrachloride, anhyd., bbls.lb. .26½- —
Titanium, dioxide, bgs., c.l. (20 tons), frt. pd..lb. .13 - —
l.c.l., 5 tons, E. frt. pd. lb. .13¼- —
Pac. Cst., ex whse..lb. .13¼- —
1,000-9,999 lbs., E. frt. pd. lb. .13¼ - —
Pac. Cst., ex whse..lb. .13¼- —
50-999 lbs., E. frt. pd. lb. .13¾ - —
Pac. Cst., ex whse..lb. .13¾- —
under 50 lbs., E. frt. pd..lb. .16 - —
Pac. Cst., ex whse..lb. .16 - —
bbls., c.l. (20 tons), frt. pd lb. .13¼- —
l.c.l., 5 tons, E. frt. pd. lb. .13½- —
Pac. Cst., ex whse....lb. .13½- —
1,000-9,999 lbs., E. frt. pd. lb. .13¾- —
Pac. Cst., ex whse....lb. .13¾- —
50-999 lbs., E. frt. pd...lb. .14 - —
Pac. Cst., ex whse....lb. .14 - —
chalk-resistant, bgs., c.l., (20 tons) frt. pd..lb. .16 - —
l.c.l., 5 tons, frt. pd....lb. .16¼- —
1,000-9,999 lbs., frt. pd.lb. .16½- —
50-999 lbs., frt. pd....lb. .16¾- —
Under 50 lbs., frt. pd..lb. .19 - —
bbls., c.l. (20 tons), frt. pd. lb. .16¼- —
l.c.l., 5 tons, E. frt. pd..lb. .16½- —
Pac. Cst., ex whse..lb. .16½- —
1,000-9,999 lbs., E. frt. pd..lb. .16¾- —
Pac. Cst., ex whse..lb. .16¾- —
50-999 lbs., E. frt. pd., lb. .17 - —
Pac. Cst., ex whse..lb. .17 - —
barium, calcium, or magnesium base, c.l., D. frt. alld., lb. .05¼- —
l.c.l., dlvd.....lb. .05½- —
Pac. Cst., ex whse..lb. .05½- —
under 50 lbs., E. dlvd.lb. .06¼- —
bbls., c.l., D. frt. alld..lb. .05¼- —
l.c.l., E., dlvd.....lb. .05¾- —
Pac. Cst., ex whse....lb. .05¾- —
under 50 lbs., E. dlvd.lb. .06¼- —
Tolidin base, distilled, kgs....lb. .80 - —
Tolu, balsam, cns.....lb. .50 - .52
Toluidin, mixed, dms.....lb. .26 - —
Toluol (toluene), pure, dms., works..gal. .27 - —
tanks, E. of Omaha, frt. alld. gal. .22 - —
W. Coast, f.o.b. Minnequa, Colo..gal. .22 - —
Nitration, dms., wks.....gal. .28½- —
tanks, E. of Omaha, frt. alld. gal. .23½- —
Tonga vine, ..F, bls.....lb. .55 - .60
root, bls.....lb. .57 - .62
Tonka beans, Angostura, cks..lb. 2.35 - 2.40
Brazilian, Surinam, cs.....lb. 1.00 - 1.10
Triacetin, dms. .....lb. .26 - —
Triamyl borate, dms., l.c.l., works..lb. .27 - —
Triamylamine, dms., c.l., works, lb. .77 - —
l.c.l., works .....lb. .78 - .80
tanks .....lb. .75 - —
Tributylamine, dms., c.l., works, lb. .67 - —
l.c.l. .....lb. .68 - .70
tanks .....lb. .65 - —
Tributyl citrate, dms., l.c.l., dlvd..lb. .35 - —
Phosphate, dms., l.c.l., dlvd., lb. .42 - —
cns., works .....lb. .46 - .48
Trichlorethylene, dms., c.l., works, frt. alld., Zone 1..lb. .08 - —
l.c.l., same basis.....lb. .08½- —
Zone 2, dms., c.l., works, frt. alld..lb. .08¾- —
l.c.l., same basis.....lb. .09 - —
Zone 3, dms., c.l., works, frt. alld..lb. .09 - —
l.c.l., same basis.....lb. .09½- —
Zone 4, dms., c.l., f.o.b. stock points..lb. .09 - —
l.c.l., same basis.....lb. .09½- —

All prices on trichlorethylene are ft. alld. with the exception of Zone 4 in which case the prices indicated are based on f.o.b. L. A., Cal., S. F., Cal., Portland, Ore., and Seattle, Wash. Zone 1, includes the following states:—Conn., Md., N. Y., Va., Ky., Me., N. J., Vt., W. Va., Mo., Tenn., Ind., Ia., Pa., R. I., Mich., Minn., Wis., Del., Mass., N. C., O., Omaha, Neb., Kansas City, Kansas. Zone 2, includes Ala., Kan., except Kansas City, N. D., Ga., Neb., except Omaha, S. D., Miss., Ark., S. C., La., Okla. and Fla. Zone 3, includes Colo., N. M., Wyo., Texas and Eastern Montana. Zone 4, includes Arizona, Western Montana, Idaho, Ore., Nev., Wash., Utah and Cal

Tricresyl phosphate, CP, cns., dlvd..lb. .40½- .51½
dms., c.l., dlvd.....lb. .34½- —
500 lbs., dlvd.....lb. .37½- —
tech., dms., c.l.....lb. .22 - —
500 lbs. dms.....lb. .22½- —
less than 500 lbs.....lb. .25½- .36½
Triethanolamine, dms., c.l., works, lb. .19 - —
l.c.l., works.....lb. .20 - —
tanks, works.....lb. .18 - —
Triethylamine, dms., l.c.l., works, lb.. 1.05 - —
Triethyl phosphate, dms., dlvd., lb. .45 - —
Triethyleneglycol, dms., l.c.l., works..lb. .26 - —
Trimethyl phosphate, cns.....lb. .54 - .56
dms., dlvd.....lb. .50 - —
Trimethylamine, dms., c.l., dlvd., lb. 1.00 - —
l.c.l., dlvd. .....lb. 1.05 - —
Triphenyl phosphate, dms.....lb. .38 - —
Tripoli, air-floated, bgs., c.l., works..ton.26.00 - —
double grd., bgs., c.l., works, ton.16.00 - —
once-grd., bgs., c.l., works..ton.14.50 - —
Trisodium phosphate (see Soda phosphate, tribasic).
Tungsten metal, powd., 99%, dms., works..lb. No prices
Oxide, CP, kgs.....lb. No prices
Chem. grade, kgs.....lb. No prices
Turmeric root, Alleppey, bgs..lb. .09½ Nom.
Madras, bgs.....lb. .11 Nom.
Turpentine, spirits, gum, bbls., c.l., ex dock..gal. .31½- —
l.c.l., 10 ex dock.....gal. .33½- —
5 ex dock.....gal. .35½- —
wood dest., dist., dms., dlvd. E. cities, ports..gal. .25 - .27
tanks, dlvd. E. cities....gal. .21 - —
steam-dist., dms., c.l., dlvd.gal. .29 - —
l.c.l., dlvd.....gal. .32 - —
tanks, dlvd.....gal. .24 - —

U

Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Uranium oxide, black, kgs....lb. 1.60 - —
yellow, kgs.....lb. 1.75 - —
Urea, dom., 46 + % N. bgs., 5 tons, f.o.b. Atl. ports or Belle, W. Va..ton.95.00 - —
smaller lots, f.o.b. Belle, W. Va..ton.95.00 - —
f.o.b. N. Y.....ton.101.00 - —
import, 46% N., bgs., 5 tons, f.o.b. Atl., Gulf ports or Belle, W. Va., shipt..ton.95.00 - —
smaller lots, f.o.b. N. Y. from whse..ton.101.00 - —
pure, cs. .....lb. .14¾- .15½
Urea-ammonia liquor, nitrogen basis, tanks, f.o.b. Belle, W. Va., or Atl., Gulf ports, ton.121.58 - —
Urea, nitrogen, dom., 42% N, bulk, Nov. shipt., f.o.b. Belle, W. Va..ton.53.40 - —
imported, 40% N_2, bgs., Nov. shipt..ton.55.25 - —
30% N_2, bgs., Nov. shipt. ton.41.85 - —
Uva ursi leaves, bls.....lb. .11 - .12

V

Valerian root, bls.....lb. .30 - .32
Valonia, beards, bgs., f.a.s..ton.54.00 Nom.
Cups, bgs., shipt., f.a.s...ton. 33.00 -37.00
extract, powdered, 63%.....ton. .0565 Nom.
Vanilla beans, Bourbon, tins..lb. 6.00 - 6.75
Mexican, tins.....lb. 6.50 - 7.50
cuts, tins.....lb. 6.00 - 6.25
South American, tins.....lb. 6.00 - 6.25
oleoresin, bots.....lb.18.00 -19.00
Vanillin, ex eugenol, 25-lb. tins, lb. 2.60 - —
5-lb. tins.....lb. 2.65 - —
1-lb. tins.....lb. 2.75 - —
ex guaiacol, 25-lb. tins.....lb. 2.50 - —
5-lb. tins.....lb. 2.55 - —
1-lb. tins.....lb. 2.65 - —
ex lignin, 25-lb. tins.....lb. 2.50 - —
5-lb. tins.....lb. 2.55 - —
1-lb. tins.....lb. 2.65 - —
Venice turpentine, true, cs....lb. .70 - .75
Verdigris, bbls., kgs.....lb. .22 - .28
Vinyl acetate, cns., works....lb. .25 - —
dms., c.l., 30,000 lbs., gross works..lb. .14 - —
l.c.l., works.....lb. .15 - —
5 gals., dms., works.....lb. .26 - —
Violet, methyl, toner (see M).
V.M.P. naphtha (see petroleum naphtha v.m.p.).

W

Wahoo bark, bls.....lb. .45 - .46
tree .....lb. .19 - .22
Wattle bark, bgs., f.a.s.....ton.35.00 -40.00
Extract, solid, bgs.....lb. .04¼- —
Wax, bayberry, import, bgs...lb. .38 - .40
Bees, white, bleach, slabs, cs., 5 case lots..lb. .38 - —
1 cs., lots.....lb. .38½- —
cakes, 5 cs., lots.....lb. .39 - —
1 cs., lots.....lb. .39½- —
discs, 5 cs., lots.....lb. .40 - —
1 cs., lots.....lb. .40½- —
yellow, crude, Africa, bgs., lots of 10..lb. .30 Nom.
1 bg.....lb. .30½ Nom.
Brazil, bgs., 5-10-ton lots, lb. .33 Nom.
1 ton.....lb. .33½ Nom.
500 lbs.....lb. .34 Nom.
100 lbs.....lb. .34½ Nom.
refd., slabs, cs., lbs.....lb. .31 - .36
Candelilla, bgs., 1 ton.....lb. .18 - .19
jobbing lots.....lb. .18½- .19½
Carnauba, No. 3 chalky, bgs., bgs., 1 ton..lb. .43 Nom.
5 bgs.....lb. .43½ Nom.
1 bg.....lb. .44 Nom.
N. C., 2, bgs.....lb. No prices
N. C., 3, bgs., 1 ton.....lb. .44 Nom.
5 bgs.....lb. .44½ Nom.
1 bg.....lb. .45 Nom.
refined, bgs.....lb. .50 - .52
yellow, No. 1 bgs., 1 ton..lb. No prices
5 bgs.....lb. No prices
1 bg.....lb. .85 - .86
No. 2, bgs.....lb. No prices
Ceresin, dom., 138°-140°, m.p., bgs., 1 ton..lb. .09 - —
jobbing lots.....lb. .10 - —
150°-160° m.p., bgs., 1 ton..lb. .10½- —
jobbing lots.....lb. .11½- —
160° m.p., bgs., 1 ton.....lb. .11½- —
jobbing lots.....lb. .12½- —
Japan, cs.....lb. .18 - .18½
Montan, bgs., c.l.....lb. No prices
5 tons.....lb. No prices
less than 1 ton.....lb. No prices
Ozokerite, hard, green, congeal. p. 66°-68° C., bgs..lb. No prices
70°-72° C., bgs.....lb. No prices
74°-76° C., bgs.....lb. No prices
snow-white, pure 76°-78° C., bgs..lb. No prices
yellow, natural, 76°-78° C., bgs..lb. No prices
Paraffin (see P.).
Spermaceti, blocks, cs.....lb. .24 - .25
cakes, cs.....lb. .25 - .26
White lead (see Lead, white).
White pine bark, rossed, bls...lb. .07 - .08
White precipitate, powd., 5-lb. bots..lb. 2.59 - —
dms., 50 lbs. or more....lb. 2.46 - —
Whiting, chalk, com'l., dry-grd., blp. bgs., c.l., works..ton.12.00 - —
l.c.l., works.....ton.14.00 - —
bbls., c.l., works.....ton.15.00 -16.50
l.c.l., works.....ton.17.00 - —
pap. bgs., c.l., works..ton.11.20 -12.50
l.c.l., works.....ton.13.20 -14.50
wet-grnd., blp., bgs., c.l., works..ton.14.50 -15.00
l.c.l., works.....ton.15.00 -19.00
bbls., c.l., works.....ton.17.00 -18.00
gilder's bolted, blp., bgs., c.l., works..ton.15.00 - —
l.c.l., works.....ton.16.00 - —
bbls., c.l., works.....ton.18.00 -19.50
l.c.l., works.....ton.19.00 -20.00
pap. bgs., c.l., works..ton.14.60 -15.50
l.c.l., works.....ton.15.60 -16.50
extra bolted, blp., bgs., c.l., works..ton.15.00 - —
l.c.l., works.....ton.16.00 - —
bbls., c.l., works.....ton.18.00 -22.50
l.c.l., works.....ton.19.60 -22.00
pap. bgs., c.l., works..ton.14.60 -17.50
l.c.l., works.....ton.15.60 -18.50
Paris, white, blp., bgs., c.l., works..ton.15.00 - —
l.c.l., works.....ton.16.00 - —
bbls., c.l., works.....ton.18.60 -24.00
l.c.l., works.....ton.19.00 -25.00
pap. bgs., c.l., works..ton.14.60 -20.00
l.c.l., works.....ton.15.00 -21.50
Limestone, air floated, 99.75%, 250 mesh, paper bgs., c.l..ton. 9.65 - —
200 mesh, paper bgs., c.l., same basis..ton. 8.60 - —
90%, 200 mesh, paper bgs., c.l., same basis.....ton. 6.25 - —
gilders, bgs. (extra), c.l., works..ton.11.50 - —
l.c.l., 8-20 tons, works..ton.12.50 - —
4-8 tons, works.....ton.13.50 - —
2-4 tons, works.....ton.14.50 - —
extra bgs. (extra), c.l., works, ton.12.50 - —
extra, bgs., l.c.l., 8-20 tons, works..ton.13.50 - —
4-8 tons, works....ton.14.50 - —
2-4 tons, works....ton.15.50 - —
putty grade, bgs. (extra), c.l., works..ton.11.00 - —
l.c.l., 8-20 tons, works.ton.12.00 - —
4-8 tons, works.....ton.13.00 - —
2-4 tons, works.....ton.14.00 - —
water-floated, bgs. (extra), c.l., works..ton.11.50 - —
l.c.l., 8-20 ton, works..ton.12.50 - —
4-8 tons, works.....ton.13.50 - —
2-4 tons, works.....ton.14.50 - —
precipitated, bgs., c.l., works, ton.15.00 - —
l.c.l., 5 tons, works.....ton.20.00 - —
smaller lots, works.....ton.25.00 - —
Wild cherry bark, thick, natural, bls..lb. .07 - .08
rossed, bls.....lb. .05 - .06
thin, natural, bls.....lb. .09 - .10
rossed, green, bls.....lb. .07 - .08
Wild Indigo root, bgs.....lb. .13 - .14
Witch-hazel extract, dist., NF bbls..gal. .40 - .45
Leaves, bls.....lb. .07 - .09
Witherite (see Barium carbonate, natural).
Woodflour, dom., fine, bgs., extra, c.l., works..ton.35.00 - —
standard, bgs., c.l., works, ton.20.00 - —
import, 70 mesh, bgs., ex dock, ton.23.00 Nom.
80 mesh, bgs., ex dock....ton.25.50 Nom.
100 mesh, bgs., ex dock...ton.28.50 Nom.
120 mesh, bgs., ex dock...ton.31.00 Nom.
Wormseed, American, bgs.....lb. .09 - .10
Levant, bgs.....lb. 5.00 - 6.00
Wormwood, bls.....lb. .15 - .16

X

Xylol (xylene), indus., dms., works..gal. .31 - —
tanks, E. of Omaha, frt. alld., gal. .26 - —
dms., W. Coast, f.o.b. Minnequa, Colo..gal. .26 - —
nitration, dms., works.....gal. .43 - —
tanks, E. of Omaha, frt. alld., gal. .28 - —
W. Coast, f.o.b. Minnequa, Colo..gal. .28 - —
5°, dms., works.....gal. .37 - —
tanks, E. of Omaha, frt., alld., gal. .32 - —
10°, dms., works.....gal. .34 - —
tanks, E. of Omaha, frt. alld., gal. .29 - —
Xylidin, mixed, dms.....lb. .28 - .30

Y

Yara yara, cryst., cns.....lb. 1.23 - 1.30
Yellow, cadmium, CP, import., bxs..lb. 1.35 - 1.70
lithopone, all shades, bbls 1 ton, works, frt. alld..lb. .50 - —
smaller lots, same basis..lb. .55 - —
kgs., ton lots, same basis, lb. .55 - —
smaller lots, same basis, lb. .60 - —
Sulphide, orange, bbls., works, lb. .75 - —
Chrome, CP, bbls., dlvd. N. of Tenn. and N. C., E. of Miss., R., including Davenport, Minneapolis, Rock Island, St. Louis, St. Paul, contracts....lb. .14½- —
open order .....lb. .15½- —
Chrome yellow CP prices are ½c. higher dlvd. Ala. Fla., Ga., La. (Shreveport, 1½c.), Miss., N. C., S. C., Tenn., Tex., (Dallas, Ft. Worth, 1½c.; El Paso, &c., Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; ½c. higher dlvd. Pac. coast; for Denver, Pueblo, Salt Lake City, Wichita, prices are equalized with Chicago
Dutch, pink, bbls.....lb. .09 - .11
Hansa, bbls., same basis, chrome lb. 1.87 - —
primrose shade, bbls., same basis, chrome..lb. 1.78 - —
Mercury oxide (see M.)
Ocher, Amer., golden, A, bbls., lb. .06½- —
B, bbls., works.....lb. .04½- —
C, bbls., works.....lb. .03½- —
yellow, A, bbls., works...lb. .03½- —
B, bbls., works.....lb. .03½- —
C, bbls., works.....lb. .02 - —
D, bbls., works.....lb. .0190- —
E, bbls., works.....lb. .01775- —
F, bbls., works.....lb. .01½- —
G, bbls., works.....lb. .01½- —
H bbls. works .....lb .01½ - —
French, all shades, cks., c.l., ex dock Baltimore, Boston, N. Orleans, for import, lb. .02475- —
New York (f.o.b.)..lb. .03½- —
Philadelphia for import..lb. .03¾- —
ex dock, San Pedro, San Francisco..lb. .0290- —
l.c.l., ex dock Baltimore, Boston, N. Orleans..lb. .02675- —
New York .....lb. .03¾- —
ex-dock Phila., for import..lb. .03¾- —
Portland, Seattle...lb. .03¾- —
San Pedro, S. Francisco..lb. .03 - —
ex whse., Baltimore, Boston, N. Orleans lb. .02725- —
Chicago, E. St. Louis, Indianapolis, Kan. City, Milwaukee, St. Louis .....lb. .03¾- —
New York .....lb. .03¾- —
l.c.l., ex whse., Pittsburgh, lb. .03¾- —
Portland, Seattle.....lb. .03¾- —
San Pedro, S. Francisco..lb. .03¾- —
f.o.b. N. Y., from dock, lb. .03¾- —
from whse. .....lb. .03¾- —
Oxide, nat., bbls., c.l., f.o.b. Bethlehem, Easton, N.Y.lb. .04½- —
l.c.l., same basis.....lb. .04¾- —
synth., bbls., c.l., works..lb. .06½- —
l.c.l., same basis.....lb. .04¾- —
Persian orange (see O).
Zinc, bbls., same basis chrome CP. contracts..lb. .18 - —
open order .....lb. .19 - —
Yellow dock root, dom., bls....lb. .17 - .18
Yellow root (xanthorhiza), bls..lb. .11 - .12
Yerba santa leaves, bls.....lb. .11 - .13
Yohimbine hydrochloride, via..oz. 4.00 - 4.25

Z

Zein, bgs., 1,000 lbs. or more, works..lb. .20 - —
less than 1,000 lbs., works..lb. .25 - —
Zinc acetate, tech., bbls., works, lb. .16 - .16
USP, bbls., 250 lbs.....lb. .27 - —
kgs., 100 lbs..... lb .30 - —
Arsenite, bgs., c.l., dealers, E. of Rockies lb. .12 - —
l.c.l., bags .....lb. .13½- —
Zinc arsenite prices are on a frt. alld. basis to dest. in lots of 95 lbs. or over.
Carbonate, tech., bbls.....lb. .14 - .16
USP, precip., powd., bbls...lb. .21 - —
dms. .....lb. .26 - —
kgs. .....lb. .23 - —
Chloride, tech., fused, dms., c.l., works..100 lbs. 4.25 - —
l.c.l., works.....100 lbs. 4.60 - —
gran., dms., c.l., works, 100 lbs 5.00 - —
l.c.l., dms., works.100 lbs. 5.75 - —
USP, 200-lb. dms.....lb. .25 - —
25-lb. jars.....lb. .31 - —
solution, 50%, dms., c.l. works...lb. .0290- —
l.c.l., works.....lb. .04 - .04½
tanks, works.....lb. .0225- —
Cyanide, kgs., works.....lb. .33 - —
Dust, bbls., c.l., dlvd.....lb. .06½- —
l.c.l., bbls., dlvd.....lb. .08 - —
Iodide, N.F., bots.....lb. 4.25 - —
Fluoride, bbls.....lb. .29 - .35
Metal (see daily quotations in Market report).
Oxide, pigment, dom., Amer., process, comml., lead free, bgs., c.l., dlvd..lb. .06½- .07½
l.c.l. dlvd. except Pac. cst lb. .06½- .07½
bgs., l.c.l., ex whse., Pac. cst.....lb. .06½- .07½
bbls., c.l. dlvd....lb. .06½- .07½
l.c.l., dlvd., except Pac. cst..lb. .06¾- .08
ex whse., Pac. cst..lb. .06¾- .08
leaded, 5%, bgs., c.l., dlvd..lb. .06½- —
l.c.l., dlvd. except Pac. cst..lb. .06¾- —
ex whse., Pac. cst.lb. .06¾- —
bbls., c.l., dlvd....lb. .06¾- —
l.c.l., dlvd., except Pac. cst..lb. .06¾- —
ex whse., Pac. cst.lb. .06¾- —
35%, bgs., c.l., dlvd.lb. .06 - —
l.c.l., dlvd., except Pac. cst..lb. .06¼- —
ex whse., Pac. cst. lb. .06¼- —
bbls., c.l., dlvd..lb. .06¼- —
bbls., l.c.l., dlvd., except Pac.cst..lb. .06½- —
ex whse., Pac. cst. lb. .06½- —

Zinc Oxide—Beckamine

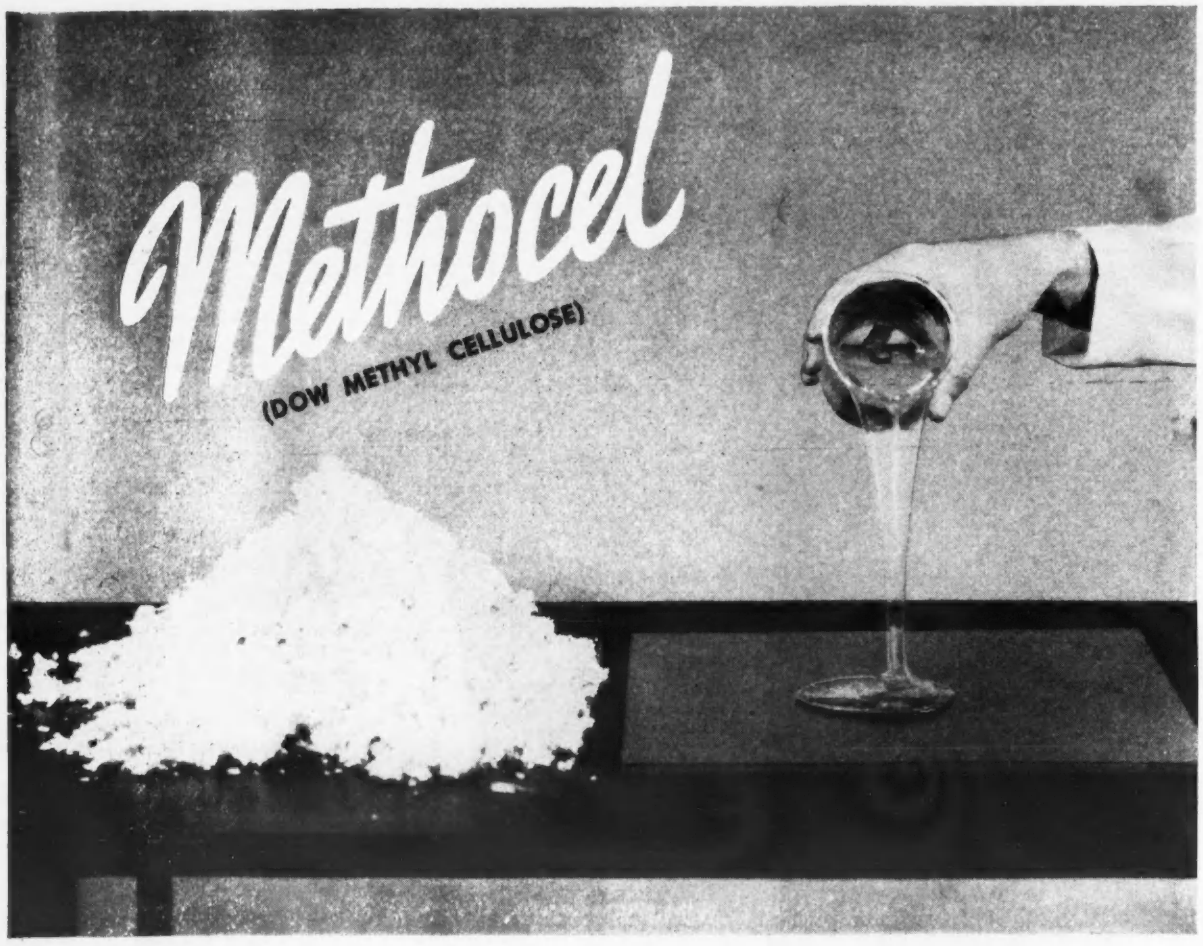
Zinc oxide, pigment, dom., Amer. process, coml., leaded, 50%, bgs., c.l., dlvd., except Pac. cst.....lb. .0606 -
Pac. cst.....lb. .0612 -
l.c.l., dlvd., except Pac. cst..lb. .0631 -
bgs., ex whse., Pac. cst..lb. .0631 -
bbls., c.l., dlvd....lb. .0631 -
l.c.l., dlvd., except Pac. cst..lb. .0656 -
ex whse., Pac. cst.lb. .0656 -
French process, coml, lead free, bgs., c.l., dlvd. lb. .06½ - .07⅛
l.c.l., dlvd., except Pac. cst..lb. .06½ - .07⅛
ex whse., Pac. cst..lb. .06⅝ - .07⅝
bbls., c.l., dlvd.....lb. .06½ - .07⅛
l.c.l., dlvd., except Pac. cst..lb. .06⅝ - .06
ex whse., Pac. cst.lb. .06⅝ - .06
green seal, bgs., c.l., dlvd. lb. .06 - —
l.c.l., dlvd., except Pac. cst..lb. .06⅛ - —
ex whse., Pac. cst.lb. .06⅛ - —
bbls., c.l., dlvd.....lb. .06⅛ - —
l.c.l., dlvd., except Pac. cst..lb. .06⅛ - —
ex whse., Pac. cst.lb. .06⅛ - —
red seal, bgs., c.l., dlvd..lb. .07½ - —
l.c.l., dlvd., except Pac. cst..lb. .07⅝ - —
ex whse., Pac. cst..lb. .07⅝ - —
bbls., c.l., dlvd.....lb. .07⅝ - —

Zinc, oxide, French process, red seal, bbls., l.c.l., dlvd., except Pac. cst.lb. .08 - —
ex whse., Pac. cst..lb. .08 - —
white seal, bgs., c.l., dlvd. lb. .08⅛ - —
l.c.l., dlvd., except Pac. cst..lb. .08⅜ - —
ex whse., Pac. cst..lb. .08⅜ - —
ex whse., bbls, c.l.....lb. .08⅜ - —
l.c.l., dlvd., except Pac. cst..lb. .09 - —
ex whse., Pac. cst..lb. .09 - —
import, gold seal, cks., ex whse..lb. .13 - .14
green seal, bbls., ex whse., lb. .10 - —
white, seal, cks., ex whse., lb. .11 - .12⅛
USP, bbls., c.l.....lb. .09½ -
Palmitate, bbls.....lb. .24½ - .26⅛
Resinate, fused, pale, bbls..lb. .10 - —
precip., dms., dlvd.....lb. .15 - —
Stearate, tech., precip., bbls., ctns., c.l..lb. .21½ - —
l.c.l., 1 ton.....lb. .22½ - —
1,000-2,000 lbs.....lb. .23½ - —
less than 1,000 lbs...lb. .24½ - —
U.S.P., bbls.....lb. .22½ - .24⅛
Sulphate, cryst., bgs., c.l.....
100 lbs. 2.75 - —
l.c.l. .....100 lbs. 3.50 - —
bbls., c.l.....100 lbs. 2.90 - —
l.c.l. .....100 lbs. 3.65 - —
flake, bgs., c.l.....100 lbs. 3.10 - —
l.c.l. .....100 lbs. 3.85 - —
bbls., c.l.....100 lbs. 3.25 - —
l.c.l. .....100 lbs. 4.00 - —

Zinc sulphate, powd., bgs., c.l., 100 lbs. 4.35 - —
l.c.l. .....100 lbs. 5.10 -
bbls., c.l.....100 lbs. 4.50 - —
l.c.l. .....100 lbs. 5.25 - —
Sulphide, bgs., c.l. (20 tons), dlvd..lb. .07½ - —
l.c.l., dlvd. E. or ex whse., Pac. cst..lb. .07⅝ - —
bbls., c.l. 20) bbls., c.l., (20 tons), dlvd.....lb. .07⅝ - —
l.c.l., dlvd. E. or ex whse., Pac. cst..lb. .08 - —
barium, calcium or magnesium pigments, bgs., c.l., (20 tons) dlvd..lb. .05¼ - —
l.c.l., dlvd. E. or ex whse., Pac. cst..lb. .05½ - —
bbls., c.l., (20 tons), dlvd..lb. .05½ - —
l.c.l., dlvd., E. or ex whse., Pac. cst..lb. .05¾ - —
Sulphocarbolate, NF, bbls....lb. .24 - .26
Zinc-ammonia chloride, dms., c.l., works..100 lbs. 5.15 - —
l.c.l., works.....100 lbs. 5.50 - —
Zinc-iron oxide, pigment, bgs., c.l., dlvd..lb. .05 - —
l.c.l., dlvd., except Pac. cst..lb. .05¼ - —
ex whse., Pac. cst..lb. .05½ - —
Zirconium nitrate, kgs., works..lb. 2.00 - 4.00
Oxide, crude, 70-75%, grd., bbls., works..ton.75.00 -100.00
white, 98%, rgd., kgs., works, lb. 1.25 - 2.00

DOW ANNOUNCES

FIRST DOMESTIC PRODUCTION OF



METHOCEL* (Dow Methyl Cellulose) is a highly versatile new water soluble cellulose ether with a wide range of application, particularly in the manufacture of paper, textiles, cosmetics and food products.

METHOCEL readily yields clear, neutral, aqueous solutions of any desired viscosity. It is odorless, colorless, and completely non-toxic. METHOCEL coatings are grease-proof, tough, and highly flexible. Its properties forecast unusual possibilities as an agent for dispersing, thickening, emulsifying, sizing, and coating.

METHOCEL is regularly supplied in four viscosity types: low, medium, high, and extra high.

Further technical data and samples of METHOCEL will be supplied upon request.

THE DOW CHEMICAL COMPANY
1840 East Main St. MIDLAND, MICHIGAN
Branch Sales Offices: 30 Rockefeller Plaza, New York City; Second and Madison Streets, St. Louis; Field Building, Chicago; 9 Main Street, San Francisco; 4151 Bandini Blvd., Los Angeles.
*Trade Mark Reg. U. S. Pat. Off.

ETHOCEL DOW METHOCEL

PRODUCERS OF MORE THAN 300 CHEMICAL PRODUCTS

Synthetic Resins and other Branded Paint Materials (Manufacturers' List Prices)

A

Abalyn dms., lots of 10, works. lb. .10 - —
single dms., works.....lb. .12 - —
5 gal. cans, works.....lb. .17 - —
Aroclors, distilled, dms., c.l., works..lb. .23 - —
ton lots, works.....lb. .25 - —
single dms., works.....lb. .27 - —
undistilled, dms., c.l., works, lb. .18 - —
ton lots, works.....lb. .20 - —
single dms., works.....lb. .22 - —

B

Bakelite, dispersion resins, BK, 3962, XK 6791, dms., 30,000 lbs., works..lb. .22½ - —
15,000 lbs., works.....lb. .23 - —
5,000 lbs., works.....lb. .23½ - —
lacquer, XR 2342, dms., 30,000 lbs., works..lb. .27 - —
15,000 lbs., works.....lb. .28 - —
5,000 lbs., works.....lb. .29 - —
3180, dms., 30,000 lbs., works..lb. .45 - —
15,000 lbs., works.....lb. .46 - —
5,000 lbs., works.....lb. .47 - —
4357, dms., 30,000 lbs., works..lb. .45 - —
15,000 lbs., works.....lb. .46 - —
5,000 lbs., works.....lb. .47 - —
phenolic, 100%, BR, 254, bbls., 30,000 lbs., works..lb. .45 - —
15,000 lbs., works...lb. .46 - —
5,000 lbs., works...lb. .47 - —
1329, bbls., 30,000 lbs., works..lb. .25 - —
15,000 lbs., works...lb. .26 - —
5,000 lbs., works...lb. .27 - —
2027, bbls., 30,000 lbs., works..lb. .26 - —
15,000 lbs., works...lb. .27 - —
5,000 lbs., works...lb. .28 - —
3360, bbls., 30,000 lbs., works..lb. .36 - —
15,000 lbs., works...lb. .37 - —
5,000 lbs., works...lb. .38 - —
4036, bbls., 30,000 lbs., works..lb. .37 - —
15,000 lbs., works...lb. .38 - —
5,000 lbs., works...lb. .39 - —
6362, bbls., 30,000 lbs., works..lb. .42 - —
15,000 lbs., works...lb. .43 - —
5,000 lbs., works...lb. .44 - —
8900, bbls., 30,000 lbs., works..lb. .41 - —
15,000 lbs., works...lb. .42 - —
5,000 lbs., works...lb. .43 - —
9476, bbls., 30,000 lbs., works..lb. .24 - —
15,000 lbs., works...lb. .24½ - —
5,000 lbs., works....lb. .25 - —
Bakelite, XR, 9517, dms., 30,000 lbs., works..lb. .29 - —
15,000 lbs., works...lb. .30 - —
5,000 lbs., works...lb. .31 - —
drums, works.....lb. .32 - —
10282, dms., 30,000 lbs., works..lb. .34 - —
15,000 lbs., works...lb. .35 - —
5,000 lbs., works...lb. .36 - —
drums, works.....lb. .37 - —
modified, BR, 302, dms., 30,000 lbs., works...lb. .23½ - —
15,000 lbs., works...lb. .24 - —
5,000 lbs., works...lb. .24½ - —
2072, bbls., 30,000 lbs., works..lb. .23 - —
15,000 lbs., works...lb. .23½ - —
5,000 lbs., works...lb. .24 - —
2175, cns., 30,000 lbs., works..lb. .23 - —
15,000 lbs., works...lb. .23½ - —
5,000 lbs., works...lb. .24 - —
2963, bbls., 30,000 lbs., works..lb. .24 - —
15,000 lbs., works...lb. .24½ - —
5,000 lbs., works...lb. .25 - —
solutions, XJ, 180, dms., 30,000 lbs., works..lb. .179 - —
15,000 lbs., works.....lb. .184 - —
5,000 lbs., works.....lb. .189 - —
2681, dms., 30,000 lbs., works..lb. .22 - —
15,000 lbs., works.....lb. .22⅝ - —
5,000 lbs., works.....lb. .23 - —
Beckacite, modified phenolic, 1100, dms., 1-9, frt. pd..lb. 14½ - —
1101, dms., 1-9, frt. pd.....lb. .13 - —
1102, dms., 1-9, frt. pd.....lb. .12½ - —
1106, dms., 1-9, frt. pd.....lb. .14 - —
1107, dms., 1-9, frt. pd.....lb. .13 - —
1108, dms., 1-9, frt. pd.....lb. .11 - —
1112, dms., 1-9, frt. pd.....lb. .14½ - —
1113, dms., 1-9, frt. pd.....lb. .12 - —
1116, dms., 1-9, frt. pd.....lb. .14½ - —
P-146, dms., 1-9, frt. pd....lb. .11½ - —
P-147, dms., 1-9, frt. pd....lb. .12 - —
1121 dms, 1-9, frt. pd....lb. .17½ - —
1122, dms., 1-9, frt. pd....lb. .14½ - —
nonphenolic, 1110, dms., 1-9, frt. pd..lb. .12¾ - —
1111, dms., 1-9, frt. pd.....lb. .13 - —
1114, dms., 1-9, frt. pd.....lb. .12½ - —
1120, dms., 1-9, frt. pd.....lb. .13 - —

Beckacite prices in lots of 10 dms. or more are ½c. per lb. less than above; in carloads, 1c. per lb. less. These prices apply in N. E. and Mid-Atl. States, Ill., Ind., Ky., Mich., Minn., N. C., Ohio, Va., W. Va., Wis., and St. Louis, Mo.; add ¾c. per lb. on less than carloads and ½c. per lb. on carloads to Ark., Iowa, Kan., Mo. (except St. Louis), Neb., N. D., Okla., S. D., all South. States, and Dallas and Houston, Tex.; for Calif. add ¾c. per lb. on less than carloads and ½c. per lb. on carloads of regular items covered by contract, on items not shown in this list and items not covered by contract which must be shipped direct from Detroit, Mich., or Elizabeth, N. J., add 2c. per lb. on less than carloads and 1c. per lb. on carloads, carload prices listed above apply on shipments by water from Elizabeth, N. J., ex dock at Los Angeles, San Francisco, or Seattle; add 2c. per lb. on less than carloads and 1c. per lb. on carloads to Tex. (except Dallas and Houston) and all other points in the U. S. not mentioned in the foregoing.

Beckamine, 3440, ex. lt., dms., 1-9, frt. pd..lb. .22½ - —
P-2, dms., 1-9, frt. pd.....lb. .14 - —
P-138, dms., 1-9, frt. pd....lb. .20½ - —

Beckamine prices in lots of 10 dms. or more are ½c. per lb. less than above; in carloads, 1c. per lb. less; subject to same geographical differentials as Beckacite.

Beckolin, dark, dms., 1-9, frt. pd..lb. .16½- —
light, dms., 1-9, frt. pd.....lb. .18½- —
Beckolin prices in lots of 10 dms. or more are ½c. per lb. less than above; in carloads, 1c. per lb. less; subject to same geographical differentials as Beckacite.

Beckopol, 1400, dms., 1-9, frt. pd..lb. .17½- —
Beckopol prices in lots of 10 dms. or more are ½c. per lb. less than above; in carloads, 1c. per lb. less; subject to same geographical differentials as Beckacite.

Beckosol, emulsion, 1500, dms., 1-9, frt. pd..lb. .11½- —
1501, dms., 1-9, frt. pd.....lb. .12½- —
Solid, 1, dms., 1-9, frt. pd....lb. .25 - —
3, dms., 1-9, frt. pd.....lb. .23 - —
7, dms., 1-9, frt. pd.....lb. .23 - —
18, dms., 1-9, frt. pd.....lb. .23 - —
18, dms., 1-9, frt. pd.....lb. .22 - —
19, dms., 1-9, frt. pd.....lb. .27 - —
24, dms., 1-9, frt. pd.....lb. .30 - —
31, dms., 1-9, frt. pd.....lb. .23 - —
32, dms., 1-9, frt. pd.....lb. .22 - —
Solution, nonphenolic, 1309, dms., 1-9, frt. pd..lb. .18½- —
1319, dms., 1-9, frt. pd..lb. .18½- —
1321, dms., 1-9, frt. pd..lb. .17½- —
phenol modified, 1303, dms., 1-9, frt. pd..lb. .13½- —
1304, dms., 1-9, frt. pd..lb. .13½- —
1320, dms., 1-9, frt. pd..lb. .14 - —
1325, dms., 1-9, frt. pd..lb. .13 - —
1328, dms., 1-9, frt. pd..lb. .12 - —
1329, dms., 1-9, frt. pd..lb. .12 - —
phenol modified and oil extended, 1, dms., 1-9, frt. pd. lb. .13½- —
2, dms., 1-9, frt. pd.....lb. .13 - —
1316, dms., 1-9, frt. pd...lb. .14½- —
1326, dms., 1-9, frt. pd...lb. .14 - —
pure alkyd, 1306, dms., 1-9, frt. pd..lb. .12½- —
1307, ex. lt., dms., 1-9, frt. pd..lb. .14½- —
light, dms., 1-9, frt. pd.lb. .13½- —
1308, dms., 1-9, frt. pd..lb. .13½- —
1313, ex. lt., dms., 1-9, frt. pd..lb. .13½- —
light, dms., 1-9, frt. pd.lb. .12½- —
1318, dms., 1-9, frt. pd..lb. .16½- —
1323, ex. lt., dms., 1-9, frt. pd..lb. .14½- —
light, dms., 1-9, frt. pd.lb. .13½- —
1324, dms., 1-9, frt. pd....lb. .24½- —
1331, dms., 1-9, frt. pd....lb. .12¼- —
1332, dms., 1-9, frt. pd....lb. .12 - —
1333, dms., 1-9, frt. pd....lb. .14½- —
1334, dms., 1-9, frt. pd....lb. .13½- —
pure alkyd., P-7, dms., 1-9, frt. pd..lb. .14½- —
P-48, dms., 1-9 frt. pd...lb. .12½- —
P-94, dms., 1-9, frt. pd...lb. .15½- —
Beckosol, solid, prices in lots of 10 dms. or more are ¾c. per lb. less than above; in carloads, 1½c. per lb. less; prices of other Beckosols are ½c. per lb. less in lots of 10 dms. or more, 1c. per lb. less in carloads; all are subject to the same geographical differentials as Beckacite.

C

Cumar, AX, dms., works.....lb. .06 - —
BX, dms., works.....lb. .06 - —
CX, dms., gross weight, works, lb. .05 - —
DX, dms., gross weight, works, lb. .04 - —
EX, dms., gross weight, works, lb. .04 - —

Beckolin—Hercolyn

Cumar, FX, dms., gross weight, works..lb. .05 - —
MH, col. ⅛, dms., works....lb. .12 - —
1, dms., works.....lb. .11 - —
1½-2, dms., works.....lb. .10 - —
2½ and darker, dms., works, lb. .09 - —
MS, dms., works.....lb. .10 - —
P, 10°-90° C., col. 8 and darker, dms., works..lb. .10½- —
RH, dms., works.....lb. .10 - —
RS, dms., works.....lb. .10 - —
special soft, dms., works...lb. .10 - —
V, col. ⅛, dms., works....lb. .12 - —
1, dms., works.....lb. .11 - —
1½-2, dms., works.....lb. .10 - —
2½ and darker, dms., works, lb. .09 - —
W, col. ⅛, dms., works.....lb. .13 - —
1, dms., works.....lb. .12 - —
1½-2, dms., works.....lb. .11 - —
2½ and darker, dms., works, lb. .10 - —
Cumar prices include frt. equald. with Pittsburgh; prices on contracts terminating June, 1939, are ¼c. per pound lower.

D

Durez, 202, dms., 30,000 lbs., works..lb. .40 - —
l.c.l., works .....lb. .41 - —
210, dms., 30,000 lbs., works.lb. .14½- —
l.c.l., works.....lb. .15 - —
220, dms., 30,000 lbs., works..lb. .15 - —
l.c.l., works.....lb. .15½- —
500, dms., 30,000 lbs., works, lb. .32 - —
l.c.l., works - .....lb. .33 - —
525, dms., 30,000 lbs., works, lb. .24 - —
l.c.l., works .....lb. .26 - —
550, dms., 30,000 lbs., works, lb. .29 - —
l.c.l., works .....lb. .30 - —
570, dms., 30,000 lbs., works.lb. .44 - —
l.c.l., works.....lb. .45 - —
Durez c.l. prices also apply on mixed cars; three-month contracts are for price protection only; for Pacific Coast and Gulf points, ex warehouse, add 3c. per lb.
Durite, 1,301 pale, one drum and over..lb. .25 - —
smaller lots.....lb. .26 - —
1,321, c.l.....lb. .40 - —
2,000 lbs. to c.l.....lb. .41 - —
smaller lots.....lb. .42 - —
All Durite prices are f.o.b. Phila., Pa., with freight allowed east of Rocky Mts.

G

G, resin, dms., gross weight, works..lb. .07 - —
G resin prices on contracts terminating June, 1939, are ¼c. per pound lower; Los Angeles and San Francisco ex whse., 3c. per lb. extra.
Guai-a-phene, 10-gal. cns., works, gal. 2.57 - —
5-gal. cns., works.....gal. 2.62 - —
1-gal. cns., works.....gal. 2.82 - —
dms., works.....gal. 2.50 - —

H

Hercolyn, dms., lots of 10, works. lb. .15 - —
single dms., works.....lb. .17 - —
cans, works.....lb. .22 - —

—*Continued on page 41*

Unretouched photo showing transparent cellulose coated with Durez 550 enamel, after dozens of tramplings under heels. No breaks, no loss of adhesion.

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Founded October 18, 1871, by William O. Allison

Published every Monday by Oil, Paint and Drug Publishing Company, Inc. Harry J. Schnell, President and Treasurer; Frank V. Baldwin, Vice-President; Daniel G. Bogert, Secretary. Address 59 John Street, New York, New York, U. S. A. Telephone JOhn 4-2357. Cable Address Reporter New York.

Incorporating the Drug, Paint and Oil Trade, the New York Drug Bulletin, The Weekly Drug News, the New York Druggists' Price Current, The Soap Makers' Journal, the Oil and Paint Review and International Petroleum Reporter.

Subscription rates including postage in the United States, possessions and territories, one year, $5.00; two years, $8.00; Canada and Newfoundland, one year, $7.00; two years, $12.00; other foreign countries, one year, $10.00; two years, $18.00.

Member—Audit Bureau of Circulations.

Entered at the Post Office of New York as second class matter January 15, 1884, under the act of March 3, 1879.

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Vol. 136 November 6, 1939 Number 19

Containers A Problem

Containers threaten to present as big a problem as raw materials for certain divisions of the chemical and related converting, processing, and compounding industries. Conditions are already ominous in respect of paper bags and to an extent steel packages. The problem which containers may present is one in which the scientific and technical departments of the industries cannot be looked to for as much help as they may be expected to give in connection with materials.

The paper pulp situation is reported to be approaching a disturbing degree of seriousness. In spite of the chemically assisted progress made in the utilization of fast-growing pinewood, the supply of pulp is becoming a matter of concern; for it takes time to build pulp plants, and this country but recently began to advance toward self-sufficiency in this material.

Users of paper bags are beginning to study the possibilities of cotton containers. In this direction they see relief in emergency, but they are not yet satisfied whether even that will afford a satisfactory adjustment of costs. There is plenty of cotton, and the capacity of textile mills could probably be made adequate. But, although heavy-duty paper bags are not cheap, cotton bags of equal durability doubtless would cost more. The chemical industry has an opportunity to experiment in the treating of cotton fabric for construction of bags.

Steel sheets are likely to come into various new demands now that the arms embargo has been lifted by Congress, even though American industry does not engage in the production of war equipment to the extent that might be expected. Demand for steel has already raised some concern relative to the supply that may be available for making containers and about costs. Some users are already beginning to think of the effect of this on tinplate. Study of readjustments from the increasing use of one-time metal shippers is being suggested.

The consuming industries, whatever the seriousness of the question of supplies, might well turn their attention to the providing of more lasting, as well as different containers, to the reuse of containers, and to the reclamation of container materials. The junkman may become industrially important.

Research At Work

The practical value of research to industry was clearly demonstrated at the recent annual meeting of the Federation of Paint and Varnish Production Clubs. In one matter alone—meeting the emergency created by the restriction of supplies of chinawood oil—the studies which the technical men of the paint industry have been making with respect to important materials were shown to be of great usefulness in the maintenance of production and the prevention of excessive costs.

It is difficult, as was pointed out at the paint technicians' meeting, to predict the industrial value of any research project. Often it is impossible to say that its results will have any value. Nevertheless research pays; even that which commonly is styled "pure" frequently has eventual earning capacity that is worth while. It is in recognition of this usually undemonstrable truth that industry is constantly devoting more of its resources of men and money to research.

The cause of research is well served in all particulars by organizations such as the paint technicians' federation. This service is enhanced in value by the opportunities afforded in the activities of the local clubs of that group. Research progresses by accretion and coordination of the ideas and experiments of many. This in turn is furthered by individual contacts which permit a reciprocal flow of thoughts. Attending the meetings of his local and national organizations should be a required duty of every paint technician.

—O-P-D—

Trade Pacts Test Looms

The status of tariff bargains under the Federal constitution may be tested by the Supreme Court of the United States. The Department of State has expressed its willingness to permit the Governor of Rhode Island to carry before the high court the question of whether the reduction of duties on laces by the tariff bargain with France is not an unconstitutional interference with the lace industry of his State.

Such a suit would open a series of very interesting and quite important questions which might have more or less to do with constitutionality, but could reach to basic national economy and its political manifestations. Whatever may be the view of the economic value of tariff bargains in comparison with protective tariffs, the question at issue appears to be one of fact more than of law and therefore at best to be but little related to constitutionality. The elementary aspect of any tariff is factual, rather than legal. No tariff whether high or low is directly and equitably of benefit to all the people, and apparently any tariff is within the powers granted to the Congress.

The constitutionality of such congressional enactments as the statute authorizing tariff bargains is a delicately balanced question. The constitution delegates certain powers to Congress, but it lays no narrow, definite limits on the manner in which these shall be exercised. Among these powers is "to lay and collect taxes, duties, . . .," but members of Congress are not themselves or through their various assistants engaged in the job of tax-collector. May they not likewise delegate the details of levying duties?

Because Congress is not considered to have ultimate legal knowledge the courts are vested with a supreme power of veto. Because Congress does not have factual omniscience is it not reasonable that it should be permitted to authorize an agency to ascertain and apply facts to economic problems? The value of tariff bargains is dubious; but this is an economic matter, not a constitutional one.

—O-P-D—

Public Opinion And the Law

Public opinion has a high value in relation to business policies and practices; but it is not the court of last resort which it seems to be regarded by those who make and some who believe in public surveys on matters of interest. Public opinion is usually sound—if it is properly collected and impartially evaluated. That it can be quite the opposite has been proved time and again. Its real value is as the foundation of legislation on one hand and of business policies on the other. When these properly crystallize public opinion they do not clash.

It is something quite different to apply public opinion to business practices under existing law; there are too many "sea lawyers" ready to express profound opinions—and at least as many ready to suggest them to unthinking "mouthpieces." Until these opinions have been woven into law they are not safe counsel. Public opinion breaks laws, as well as makes them.

So it is that, although public opinion has been found by approved means to disapprove suggestions that advertising copy be submitted in respect of its truthfulness to a governmental agency in advance of publication, advertisers probably will not neglect their opportunity to do so. They know that "An ounce of prevention is worth a pound of cure"—and usually costs a great deal less.

—O-P-D—

Keep Congress At Work

Generally speaking, Congress is of at least as much value to the country when it is on vacation as when it is in session. At the present time it is to be believed that Congress can do the country a better service by remaining at work through the period of world uncertainty between its completion of the special neutrality business and the time for the next regular session.

This does not imply that Congress should spend the ensuing eight weeks or so doing no more than it did in the previous regular session; even though its being on hand for emergencies would have some value. Congress has a deal of unfinished work on hand, or in its pigeonholes, at least. There is no reason that, while it stands by for emergencies, it should not give serious and necessary attention to the emending of the labor relations act and the construction of a better revenue act and to other useful legislating. Of course it has some bills before it on which action could be indefinitely postponed with distinct benefit to the nation; but its more intelligent constituents if they would could keep it to the worth-while tasks.

Members of Congress are paid by the year. They were not coaxed to take the jobs they hold. In times of obvious need they should be required to work. They might make a little extra money out of their generous traveling allowances by going home for a few weeks. But, under existing circumstances they would not be doing a public service. They have removed the arms embargo. But, considering what remains to be done in equity for business their year's work is not finished.

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Heavy Chemicals

Cylinder Chlorine, Soda Nitrite and Oxalic Acid Extended—Contract Renewals Progressing Satisfactorily for 1940—Magnesite Prices Higher — Fluorspar Remains Firm

The release of contracts for next year at the same prices for liquid chlorine in cylinders, soda nitrite and oxalic acid featured the market for heavy chemicals last week. Contracts will be booked for 1940 with the usual provision for quarterly adjustments. While contract announcements in many other important chemicals were awaited, sellers were cautious in making any decisions regarding prices, but were booking open contracts covering requirements for next year, and deferring any commitment on prices until later in the year, when they could more fully discern what production costs would be. Writing contracts on chemicals already announced was progressing quite satisfactory with most factors reporting no difficulty in lining up important consumers.

Demand for industrial chemicals was at a slower pace. Sellers welcomed a let-up in buying at this time to catch up with orders already on the books. Many chemicals continued in poor supply as the result of abnormal demands since September, and the problem of making prompt shipments further confused the situation. However, evidence of price stability over the early part of next year relieved much of the panicky demand noted earlier and will enable a great deal of the business to be carried over into the first quarter of next year.

Alumina Sulphate.—Withdrawals of the commercial and iron-free were consistent, and volume was usually confined to normal requirements. Prices ruled firm. September imports totaled 213,149 pounds, valued at $1,862, all of which came from Belgium.

Ammonia Anhydrous.—Prices were firm at the levels announced a short time ago for cylinders and tanks. Sellers will soon accept contracts on the same basis for 1940, with the usual discount for bookings before December 31.

Ammonia Aqua.—Following the announcement by a leading producer of tank prices at the same level, other factors were keeping prices firm and accepting business for the early part of next year. Drum and carboy quotations were well maintained at the recently established levels. Demand remained good.

Ammonia Nitrate.—Inquiries reached the market from numerous domestic and foreign sources, and actual shipments were comparatively good. No further change was disclosed in the quotations. September imports were 45,142 pounds, valued at $649, all of which came from Norway.

Ammoniac Sal.—Demand continued to exceed available supplies. Domestic producers were still pressed to take care of all business for the white and gray material. Prices were firm. No word was forthcoming regarding next year's contracts. September imports were 176,305 pounds, valued at $3,880, of which 67,116 pounds came from Germany; 65,097 pounds from Belgium and 44,092 pounds from Poland and Danzig.

Antimony.—Dealings in the domestic market were quiet last week. Spot price remained unchanged at 14c. per pound and the market was nominal. No quotations were available for the oxide of antimony in view of the lack of available material. Small stocks of antimony needle were obtainable at the nominal price of 20c. per pound.

Arsenic.—A fair buying interest was manifest in the market for the white, and quotations were without change. Supplies of the red were limited and the market was nominal. September imports of white arsenic totaled 1,814,644 pounds, valued at $37,886, of which 1,423,483 pounds came from Mexico; imports of red material were 49,605 pounds, valued at $6,569, all of which came from Belgium.

Barium Salts.—Quotations for barium chlorate ranged from 20c. to 25c. per pound, with supplies rather limited. Nominal prices prevailed for the hydrate and nitrate but prices were about the same.

Bleaching Powder.—A good interest was displayed in the market. Prices were firm, and sellers were reporting no difficulty in renewing contracts for the early part of next year at the same levels.

Blue Vitriol.—Inquiries reached the market from domestic and foreign sources in large volume. However, sellers were not accepting all business in view of the heavy drain on production facilities. No change took place in the quotations, but the market was in a firm position.

Calcium Chloride.—Shipments moved for ice control work at a better pace, with most of the buying representing preparations by dealers and municipalities for the coming season. Demand from miscellaneous sources, particularly for concrete curing, has been holding up well. Prices were firm.

Carbon Tetrachloride. — Shipments moved against contracts at a brisk pace. A good export inquiry was uncovered in some directions. Prices were without change and firm.

Chlorine.—Quotations for liquid chlorine in cylinders were carried into next year at the same levels by a leading producer. Booking will be made on this basis, subject to usual quarterly adjustments. Tank prices were announced previously at the same prices. Shipments to basic consuming industries were steady, and a good export inquiry prevailed.

Cobalt Salts.—Some sellers have withdrawn prices on various derivatives, including the acetate, carbonate and hydrate, while others continue to quote the same levels. No further change took place in the oxide and sulphate. September imports of cobalt oxide totaled 7,000 pounds, valued at $9,988, all of which came from Germany.

Copper.—Domestic copper price remained at 12½c. per pound. Outside market was quoted around 13c. per pound, indicating continuance of tight spot situation. Demand for export was only moderate. Domestic copper sales during October totaled 67,025 tons, compared with 183,627 tons in September.

Copper Salts.—The market for most derivatives remained nominal. Sellers were well booked ahead, and new business was subject to sellers acceptance. No further change was recorded in the prices.

Copperas.—Much the same situation prevailed as during the past several weeks, namely a lack of available material to take care of all demands. Sellers were taking care of regular bookings.

Fluorspar.—Imported quotations were nominal and higher at $26.50 to $27 per ton for the 85.5 percent material, duty paid. The situation in the domestic market was still one of firmness, and some smaller sellers were well sold up on current production.

Lead Nitrate.—A firm tone characterized the trading throughout the past week. Shipments moved steadily against contracts, with bookings made sometime previous.

Magnesite.—The domestic calcined was $2 per ton higher at $58 to $60 per ton, while the imported in bags ad-

Price Changes

Prices were changed during the past week as follows:—

Advanced

Barium chlorate, 1c. per lb.
Magnesite, calc., dom., $2 per ton.
Imported, $5 per ton.
Fluorspar, imp., $1.50 per ton.

Reduced

None.

Comparative Values

Index numbers compiled from twenty-five typical chemicals on the basis of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
149.4	**149.4**	**149.3**	**147.2**

Index numbers compiled from twenty typical acids on the basis of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
99.0	**99.0**	**99.0**	**99.6**

Market news that may have developed after this report was sent to press will be found on page 4.

Current prices on heavy chemicals are given in the alphabetical list of prices beginning on page 7

vanced $5 to $65 per ton. Demand was active.

Manganese Ore.—Following the government bids for military reserves, the price position was more clarified. Cuban material, 51-52 percent was quoted at 50c. per unit ton, exclusive of duty. Other foreign ore, including Russia, Brazilian and Indian were around this figure, without duty.

Nickel Salts.—Bookings were active in the market last week. Sellers were having difficulty supplying all demands promptly. Prices ruled firm.

Potash Carbonate.—Some business was booked for the early part of next year at firm prices, and helped to relieve the tight position of the market. New business was still restricted.

Potash, Caustic.—Sellers were engaged in writing contracts for 1940 at the same levels, subject to quarterly adjustments. Activity in the market was at comparatively high point, but most transactions reflected withdrawals against contracts, with spot business held to a minimum.

Potash Chlorate.—With only small shipments arriving from abroad, sellers were finding it difficult to meet demands from regular consumers. Quotations were strictly nominal, and high resale prices were still in evidence.

Potash Permanganate.—Sellers were booked ahead on current production, and in the absence of any imports, were not able to take care of all inquiries, but endeavored to supply needs of regular consumers. Prices ruled firm.

Saltcake.—The market remained a nominal affair. Domestic supplies were not sufficient to supply all requirements, with shipments from abroad sharply curtailed. September imports were 6,456 tons, valued at $68,073, of which 4,532 tons came from Germany, 991 tons from Belgium; 304 tons from Poland and Danzig; 569 tons from Canada and 50 tons from Chile.

Soda Ash.—Sellers were engaged in writing contracts for 1940 at the same levels. So far satisfactory progress was reported for next year's bookings. Current shipments against contracts remained active, with export inquiries holding up well.

Soda Bicarbonate.—Writing contracts for next year occupied the attention of sellers, although business against old contracts remained steady. Prices ruled firm.

Soda, Caustic.—Most quarters reported a good response to contract renewals for next year at the recently announced levels. Demand was less active, but shipments moved well against orders already booked, and were expected to keep the market steady for some weeks. The position of electrolytic remains very firm.

Soda Chlorate.—Interest in the market was steady. Sellers were adhering to prices in force previously. September imports were 239,800 pounds, valued at $8,660, of which 100,000 pounds came from Sweden and 139,800 from France.

Soda Cyanide.—A good movement to the electroplating and case-hardening trade remained in evidence. Inquiry for export also made its appearance from several countries. Prices held firm. September imports totaled 4,286,778 pounds, valued at $307,927, of which 3,562,010 pounds came from Canada, 369,936 pounds from Germany and 314,832 pounds from the Netherlands.

Soda Hydrosulphite.—Consumers entered the market for good-size replacements against contracts. Prices held firm. September imports amounted to 50,273 pounds, valued at $5,073, of which 27,400 pounds came from the United Kingdom, 11,850 pounds from Switzerland and 11,023 pounds from France.

Soda Nitrite.—Current prices were carried into next year by one producer, subject to usual adjustment clauses. Business was steady.

Soda Phosphate.—All producers were quoting the higher levels recorded a few weeks previous. An active demand prevailed at the higher levels, and the market maintained a firm position.

Soda Silicofluoride.—Domestic sellers remained well sold ahead, and spot prices were strictly nominal. Some imported was still available at 5½c. per pound. September imports totaled 661,486 pounds, valued at $8,760, of which 639,330 pounds came from Denmark and 22,156 pounds from the Netherlands.

Soda Sulphide. — Shipments against contracts were confined to normal proportions, and demand was steady last week. Prices were firm. September imports aggregated 77,063 pounds, valued at $1,298, all of which came from Germany.

Soda Sulphite.—A firm price tone continued in evidence throughout the week under review. Withdrawals were moderately active. September imports totaled 17,638 pounds, valued at $468, all of which came from Germany.

Tin Salts.—The market was devoid of any new developments as far as prices were concerned. No quotations were available for the anhydrous stannous chloride of tin, tin crystals and tin oxide. Quotation for the anhydrous tetrachloride remained at 27c. per pound. Straits metal was nominal at 54½c. per pound. The International Tin Committee announced it had fixed the tin export quota for the fourth quarter of 1939 at 100 percent of standard tonnages. The committee also decided the quota for the first three months of 1940 should be at a rate not less than 60 percent of standard tonnages.

Acids

Business in the market for various mineral acids was steady last week. Broader operations in virtually all basic consuming industries prompted many consumers to expand commitments against existing contracts. The heavier demand from regular channels led sellers in some acids to restrict new business and acceptance of export inquiries until needs of contract customers were fully provided for. A leading producer announced extension of oxalic acid prices into 1940 on the same basis. Further strengthening was discernible in acetic, with tankcar prices showing a firmer tone. Sulphuric acid was in heavy demand, and prices appeared in a much stronger position than for some time.

Acetic.—A better price tone prevailed in the market; some strengthening has appeared in glacial tankcar prices, but so far no effects have been felt in smaller quantities. Shipments moved against contracts at a good pace.

Chromic.—Prices were unchanged and firm last week. Withdrawals were steady, with the plating trade and other consumers making good size replacements.

Formic.—The textile and leather trade provided the market with a good portion of the business, and material moved in sufficient quantities to keep the position of the market strong.

Muriatic.—Major consumers entered the market on a good scale. Inquiries for export were brisk. Pricewise a firm tone predominated.

Naphthenic. — Supplies of material were limited, and sellers were not able to take care of all the demands. Prices were strictly nominal.

Nitric.—Demand held up well in the market during the past week. Sellers were adhering to quotations in force previously.

Oxalic.—A leading producer released contract prices for next year on the same basis, subject to usual quarterly adjustments. Business was quite broad, and shipments moved in fair size quantities. Inquiry for export was still active.

Sulphuric.—Demand continued active in the market last week. Shipments moved against contracts in comparatively good volume, reflecting the increased operations in many basic consuming industries, particularly steel, which reached another high level for the year. Sellers were confining the bulk of the business to regular customers, and were cautious in booking any new inquiries. Prices were firm.

Baltimore, Nov. 1.—The business done in sulphuric acid is limited almost entirely to the filling of orders placed early in the year and covering the entire twelve months. This business was complied with at the contract figures, which range around $12 per ton for 60 degree and at $15 per ton for 66 degree acid. But when it comes to sales not covered by contract, it is a different story, with the producers finding themselves unable to take on this business for the lack of free supplies. If some seller has any acid available, the price is governed by the circumstances in such cases and is above the old list. The quotations on oleum are influenced by the same conditions, with the figure now prevalent at $17 per ton for 20 percent stocks.

Insecticides

Quiet conditions surrounded trading in the market for agricultural insecticides and fungicides. Activity in the domestic market was confined to scattered portions of the country, and with-

Current prices on heavy chemicals are given in the alphabetical list of prices beginning on page 7

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drawals were not heavy. A good export inquiry remained in evidence for many materials, however. No new developments occurred in the prices, and the tone of the market held firm.

Plans to dust between 5,000 and 10,000 acres of wattle trees from the air are being arranged in Maritsburg, South Africa, in the hope of killing the bagworm pest which is a serious menace to Natal's great wattle industry. Last year experimental dusting with powdered cryolite imported from Greenland resulted in a mortality up to 97 percent, according to the American commercial attache at Johannesburg.

Calcium Arsenate.—Quiet conditions surrounded the trading in the market throughout the past week. Sellers adhered to quotations prevailing previously.

Lead Arsenate.—A firm price tone continued to characterize the market. Domestic transactions were slow, but inquiry for export was active.

Battelle Institute Appoints Physical Chemistry Advisor

Columbus, Ohio, Nov. 1, 1939

Edward Mack, jr., former head of the department of chemistry at the University of North Carolina, has been added to the supervisory staff of Battelle Memorial Institute. Dr. Mack will act as technical advisor in physical chemistry to the sponsored industrial projects, and in addition will correlate the institute's fundamental work.

Phenol Production and Use Reviewed in Reichhold Organ

The industrial ramifications of phenol are described in the leading article of the October *By Gum*, monthly publication of Reichhold Chemicals, Inc., manufacturer of synthetic resins and drying oils, Detroit, Mich. Another interesting article in the issue discusses the use of driers in synthetic resin paint and varnish formulations. Copies of the periodical may be obtained by communicating with Reichhold Chemicals, Inc., 601 Woodward Heights boulevard, Detroit, Mich., mentioning the REPORTER.

American Maize Products Company, Chicago, plans a $200,000 addition to its starch plant in Robey, Ind.

Chemical Trade Control Established by Manchuria

OPD Washington Bureau October 31, 1939

The State government of "Manchukuo" has decided to exercise unified control over the production, distribution, exports, and prices of industrial chemicals in order to cope with the heavy demand for such materials, according to a press report of September 15, 1939. The administrative details of the control measures will be entrusted to the Nichiman (Japan-"Manchukuo") Trading Company, a semi-official concern, however, official approval will be required for the firm's purchases and price levels, according to advices from the office of the commercial attache in Tokyo to the Department of Commerce, Washington.

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Dyestuffs, Textile and Leather Chemicals

Bichromate Prices Will Remain Unchanged for Next Year — Red Potash Prussiate Higher—Tapioca Flour Lower—Wattle Bark Firmer — Archil Remains Scarce

A leading producer extended contract prices into next year for soda bichromate, soda chromate and potash bichromate to provide the paramount development in the market for dyestuffs, textile and leather chemicals last week. Renewals will be subject to the usual quarterly adjustment clause. In view of the sold up condition of the market, the action was a surprise and indicated producers were endeavoring to maintain prices at reasonable levels, despite the heavy demand and uncertainty of raw material costs. The announcement was expected to bring some of the heavy bookings into the first quarter and relieve the strain on the market.

Business gave further signs of tapering off from the high levels. Many consumers bought heavily during September and most of October, and apparently were fairly well stocked up for the present. Despite the let up, price stability prevailed in most directions.

Red potash of prussiate was in poor supply, and prices advanced. Archil remained scarce and no quotations were available. No new shipments of turmeric were reported, and the market was strictly nominal. Egg products were quiet and unchanged. A fair amount of bookings were uncovered for corn derivatives after the market declined. Tapioca flour was slightly easier. Raw tanning materials were dull.

Price Changes

Prices were changed during the past week as follows:—

Advanced

Potash prussiate, red, 2c. per lb.
Starch, potato, dom., ¾c. per lb.
Wattle bark, E. African, 50c. per ton.

Reduced

Tapioca flour, ½c. per lb.

Comparative Values

Index numbers compiled from nineteen typical dyestuffs on the basis of 100 for August 1, 1914 compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
148.3	**148.3**	**148.4**	**150.0**

Market news that may have developed after this report was sent to press will be found on page 4.

Chemicals

Alumina Acetate.—A firm tone remained in evidence, and prices were without change. Shipments against contracts were steady.

Chrome Acetate.—Consumers entered the market for moderate quantities as a rule last week. Prices were unaltered.

Potash Bichromate.—Current prices were extended into 1940 by a leading producer. Contracts will be booked, subject to usual quarter adjustment clause. Demand remained steady.

Potash Prussiate.—Quotations for the red material were 2c. per pound higher, ranging from 38c. to 40c. per pound. Only limited stocks were available on spot. No change occurred in the yellow.

Soda Bichromate.—A leading producer announced contract prices for next year at the same levels, subject to usual quarterly adjustments. Current position of the market remained tight, with bookings against contracts heavy, and very little material available for other than regular contract consumers.

Soda Chromate.—A leading seller renewed prices for next year subject to usual adjustment clause. Shipments against current contracts were active.

Soda Prussiate.—Spot and contract quotations were firm and unchanged. Interest in the market was maintained at steady levels. September imports totaled 307,926 pounds, valued at $144,112 of which 77,643 pounds came from the Nethelands; 55,115 pounds from Belgium and 11,354 pounds from Japan.

Zinc Dust.—A firm price tone characterized the trading in the market, reflecting the firmness in the metal market. Demand was fairly steady, and a good export inquiry was still in evidence.

Dyestuffs

Annatto.—No change developed in the market last week; demand was fair and prices held firm. September imports of annatto and extracts were 168,994 pounds, valued at $5,184, all of which came from Ecuador.

Archil.—No prices were available. Spot stocks were negligible, and prospects of replacements remain uncertain.

Cochineal.—The tone of the market held firm. Consumers made moderate withdrawals as a rule. September imports totaled 10,261 pounds, valued at $1,975, of which 8,050 pounds came from Peru and 2,211 pounds from the Canary Islands.

Fustic.—Shipments moved to the leather and textile trade in steady fashion last week. Prices were unchanged and firm.

Logwood.—Usual consumers provided a moderate interest in the market. Prices ruled firm. September imports of extract was 31,155 pounds, valued at $4,725, of which 23,148 pounds came from France and 8,007 pounds from Jamaica.

Turmeric.—Supplies were still scarce, and the market was strictly nominal. September imports amounted to only 560 pounds, valued at $55, all of which came from Japan.

Sizing Materials

Albumen, Egg.—A steady to firm price tone prevailed in the market for domestic material. Only small quantities of imported material reached the market, and quotations were nominal. Buying was less active last week.

Dextrin.—Bookings were fairly good last week. Some buying developed after quotations were reduced. The tone of the market was firmer at the recently established levels.

Egg Yolk.—Quiet conditions surrounded the trading during the past week. Quotations for the domestic and imported were unchanged.

Starch.—Shipments moved at a fair pace during the week just ended. Prices for corn starch were well maintained at the levels recorded the preceding period. Quotations for domestic potato starch advanced, ranging from 6c. to 6¾c. per pound.

Tapioca Flour.—Quotations were ½c. per pound lower at 3c. to 5c. per pound. Buying was not as active as previously, with many consumers well supplied for the present.

Tanning Materials

Chestnut Bark.—Prices were well maintained, with a fair volume of business moving against contracts last week.

Gambier.—There was little spot material available in the market for common, plantation and Singapore cubes. Prices were strictly nominal, and demand was not very active.

Myrobalans.—The market underwent no further change, and quotations established the preceding period were well maintained. Buying was only fair.

Quebracho.—Firm conditions prevailed in the market last week. Shipments moved to consuming channels at a steady pace. Argentine exports to the United States during the first nine months amounted to $2,574,525, compared with $1,593,223 in the like period a year ago.

Sumac.—No new developments occurred in the market. Buying was not especially brisk, and prices were firm and unchanged.

Valonia.—No change developed in the quotations for the beards and cups. A moderate inquiry prevailed, and shipments were arriving in satisfactory manner.

Wattle Bark.—Price for East African advanced slightly to $35 per ton; South African was quoted at $40 per ton. Business was quiet.

Current prices on dyestuffs and tanstuffs are given in the alphabetical list of prices beginning on page 7

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Coaltar Chemicals

Demand Continues to Exceed Available Supplies in Many Items —Tar Acids Scarce — September Benzol Output Increases —By Product Coking Operations Record Another Advance

The lack of adequate supplies in many products continued to stand out in the market for coaltar chemicals last week. Tar acids and solvents were particularly tight, and despite improved production the heavy demand forced sellers to adhere to a restricted policy in dealing with abnormal demands or new business. The price position of many items was very firm and nominal.

Several new listings were added to coaltar colors to conform with the regulations embodied in the new Food, Drug and Cosmetic Act. The additional colors were made under the three separate standardized forms promulgated by the Department of Agriculture covering applications for the certification of coaltar colors.

Price Changes

Prices were changed during the past week as follows:—

Advanced

None

Reduced

None

Comparative Values

Index numbers compiled from twenty typical coaltar products on the basis of 100 for August 1, 1914, compare as follows:

Last week.	Prev. week.	Last month.	Last year.
125.7	125.7	125.7	125.9

Market news that may have developed after this report was sent to press will be found on page 4.

The production of coke from byproduct and beehive ovens in the United States for the month of September amounted to 3,979,521 tons, a gain of 269,353 tons over August output, and 1,250,832 tons more than the reported tonnage for September 1938. September marks the fourth successive month of coke advance, accumulations for the current year to date now being nearly 31 percent ahead of the same period of 1938, according to Bureau of Mines. At byproduct coke plants monthly output rose from 3,666,068 tons in August to 3,904,321 tons in September, an increase of 238,253 tons. On a daily basis September production averaged 130,144 tons, a gain of 10 percent over August, and nearly 46 percent more than the rate prevailing in September 1938. Continued activity in the iron and steel industry stimulated further progress at both furnace and merchant plants, the daily rate of operations advancing 10.8 and 7.8 percent respectively. Stocks of byproduct coke at both furnace and merchant plants were lower at the close of September, the total reduction amounting to 3.7 percent. At the rate of production in September, total byproduct stocks were sufficient to last 21.6 days.

Tar recovery during September amounted to approximately 47,839,442 gallons, against 44,881,061 gallons in August and 33,401,772 gallons in September, 1938. For the first three quarters this year, output aggregated 357,634,459 gallons, compared with 277,043,189 gallons in the same period a year ago. Light oil production was estimated at 15,777,647 gallons during September, contrasted with 14,805,902 gallons in the preceding month and 10,869,902 gallons in the like month a year ago. During the first nine months output totaled 117,974,227 gallons, as against 90,992,740 gallons in the corresponding period last year. September production of ammonia liquor (NH_3 content was 3,946,000 pounds, compared with 3,801,000 pounds in August, a gain of 3.8 percent, and 3,439,000 pounds in September 1938. Production for the first nine months amounted to 33,671,000 pounds, against 28,749,000 pounds in the like period a year ago.

Basic Products

Benzol.—Production continued to display an upward tendency, according to the latest statistics compiled by the Bureau of Mines for the month of September. Output during the month totaled 9,435,000 gallons, compared with 8,797,000 gallons in the preceding month, a gain of 7.3 percent and 6,056,000 gallons in the corresponding month a year ago. Total production for the first three-quarters of this year was 68,813,000 gallons. This represents a decided increase from the 1938 nine months figure of 48,841,000 gallons. The above figures represents all grades of benzol. Demand, however, has kept pace with the improved production, and stocks of material were not burdensome. Sellers in most instances were able to make deliveries fairly promptly. Price tone remained firm. With steel operations at virtual capacity levels and expectations of a continued high rate during the balance of the year, the market was expected to receive adequate supplies to take care of most domestic requirements.

Creosote Oil.—Firm conditions continued to prevail in the market. Domestic production was adequate to take care of the demand from major consumers. The railroads and utilities were representative buyers against contracts. Supplies of imported material have been curtailed, and have helped to firm up the market. Export inquiries reached the market from time to time, and some fair size shipments moved in this direction.

Cresols.—The market was still nominal. Demand exceeded available supplies, and, aside from regular commitments against contracts, sellers were not offering much material in the spot market.

Cresylic Acid.—No noticeable change took place in the market last week. Domestic supplies were not sufficient to satisfy all the demand, and the bulk of the business represented normal withdrawals against existing contracts. Imported material was conspicuous by its absence. The export restrictions and licensing in the English market still held up any substantial shipments. The market abroad has firmed considerably, with demand heavy and stocks low in hands of dealers and users.

Naphthalene. — Nominal prices ruled in the market for the crude material. Domestic sellers were not inclined to book all business, but preferred to satisfy needs of contract consumers. The absence of any imported material of consequence further intensified the situation. Limited shipments of refined was moving to jobbing channels, and the position of the market was very firm.

Phenol.—A firm tone governed the transactions during the past week. The heavy withdrawals during the past several weeks has left the stocks of material rather depleted, and business was restricted to normal requirements against contracts.

Toluol.—Bookings continued to exceed available production, and sellers were experiencing difficulty arranging for prompt shipment. New business was refused in most instances, and only regular contract customers were taken care of. Prices ruled firm.

Xylol.—Demand was steady in the market, with the lacquer trade providing much of the interest. Shipments against contracts were sufficient to keep stocks of material at minimum levels. No change occurred in the quotations.

Chicago Coaltar Bases

Demand for coaltar bases is reported holding up well, apparently in good relation to supplies, which continue to be on a rather augmented basis because of persistently high operating rates in the steel industry. Tone of most of the products in the market is reported stable. Inquiry holds up at a comparatively good rate. Ruling prices, exclusive of tax, are:—Benzol, 90 percent, 16c. to 17c. per gallon; motor benzol, 10½c. to 11c.; toluol, 22c.; 10-degree xylol, 29c.; solvent naphtha, 26c.; creosote oil, grade 1, 13c. to 14c.

Coaltar Acids

Anthranilic. — A moderate buying policy prevailed in the market for the refined and technical grades. Prices were firm.

Broenner's.—Usual consumers continued to enter the market for necessary replacements against contracts as a rule. Prices were without change.

Current prices on coaltar products are given in the alphabetical list of prices beginning on page 7

Cleve's.—Spot and contract withdrawals were along satisfactory lines to keep the market in a strong position.

Fumaric.—Consumers showed a good interest in this direction. Sellers were adhering to prices in force previously.

Maleic.—Major consumers were representative buyers throughout the past week. No change occurred in the prices, and the tone of the market held firm.

Sulphanilic.—A firm price tone characterized trading during the past week. Buying was steady for fair size quantities.

Other Intermediates

Alphanaphthylamine.—Firmness continued to prevail in this direction last week. Regular consumers made steady purchases.

Anilin.—Dyestuff manufacturers exerted an active interest in the market, and good size withdrawals were made against contracts. Prices ruled firm.

Anthraquinone.—A steady movement to consumers was again in evidence during the past week. Pricewise a firm tone predominated.

Betanaphthol. — The technical material was in good demand, and inquiries were brisk. Prices were in conformity with those established previously.

Dimethylanilin.—No change was disclosed in the quotations and the market maintained its firm price tone. Shipments against contracts were steady.

Dinitrochlorobenzene. — Shipments were usually made in routine manner, with regular consumers making normal commitments against contracts. No change occurred in the prices.

Dinitrotoluene.—A firm price tone prevailed in the market. Sellers restricted shipments to normal quantities as a rule.

G. Salt.—The market was strictly a routine affair last week. Sellers adhered to quotations established previously.

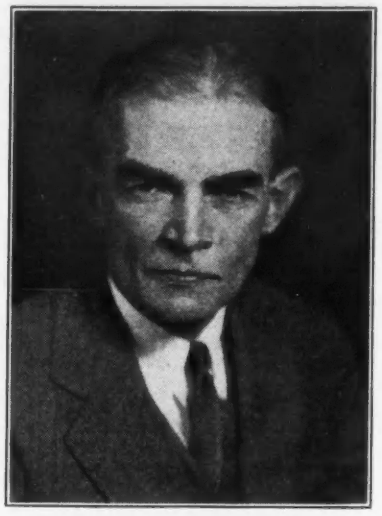
Nitrobenzene. — Withdrawals against contracts remained at comparatively satisfactory levels. Prices were unchanged and firm.

Nitrotoluene. — Sellers pursued a cautious policy in accepting all busi-

—*Continued on page* 34

Calco Chemical Dropped Corporate Identity Nov. 1

Effective as of November 1, the Calco Chemical Company, Inc., which has been a wholly owned subsidiary of the American Cyanamid Company since



F. Miller Fargo, Jr.

March, 1929, ceased to be a separate corporation and has been operating as the Calco chemical division of the American Cyanamid Company. As the Calco chemical division, operations will continue as in the past, with a separate organization for manufacture, sales, service, etc., and no changes are contemplated in the management, personnel or policy. F. Miller Fargo, jr., who had been president of the Calco Chemical Company, will continue as a vice-president and director of the American Cyanamid Company, to which he had been elected May 15, 1939.

Canada Dry Bottling Company of Florida, Orlando, is offering for public subscription 67,995 shares of $5 par common stock at $6 a share.

British Chemical Research Advisory Council Formed

London, Nov. 1, 1939

The Council of the Chemical Society has formed an Advisory Research Council, consisting of twenty members, with Sir Robert Robinson, president of the Chemical Society, as chairman. The principal function of this body will be, when approached, to bring to the notice of the society and others engaged in chemical research subjects for investigation likely to be of potential value to the nation at the present time.

In the first instance such advice will be made available to unpaid research workers in universities, colleges, and other research institutions, and to research students in receipt of research grants not definitely related to any special topic, or in regard to which the topic can be changed.

It is hoped to effect a liaison with government departments and industrial organizations so that the Advisory Research Council may know of pressing problems needing investigation, and thus be able to suggest lines of research of potential value. The field to be covered will embrace every branch of pure chemistry, including biochemistry and metallurgy, and a list of topics for research considered of national value will be drawn up, and will normally be available to those wishing to make use of it.

Steel Strapping Uses Shown

The ways in which numerous well-known industrial concerns have adopted the use of steel strapping in their shipping departments or in production processes are described in the October issue of *The Signode Seal*, published by the Signode Steel Strapping Company, Chicago, Ill. The articles and illustrations graphically depict the manner in which economies, both in time and value accompanied by an increase in strength, have been effected through the use of Signode strapping. Copies of the issue may be obtained from the company offices, 2604 N. Western Ave., Chicago, Ill., mentioning the REPORTER.

L. H. Brown Awarded Vermilye Medal

—*Continued from page* 5

diana in 1915, the year of his graduation from Iowa State University. He served as a captain with the American Expeditionary Forces during the World War. In 1919 he became identified with Montgomery Ward & Company. In 1927 Mr. Brown became the assistant to the president of Johns-Manville Corporation, and two years later, in 1929, the president of that organization. He is director of numerous corporate interests, including the New York Telephone Company and the Mutual Life Insurance Company. In 1933 he served as president of the Asbestos Institute.

American Cyanamid Reports Sharp Increase in Earnings

Net earnings of the American Cyanamid Company and subsidiaries for the nine months ended September 30, 1939, amounted to $3,339,437, equivalent after preferred dividends to $1.25 per share of common stock outstanding. This compares with $1,400,280, or 53c. a share, earned in the corresponding period of 1938.

For the nine months of this year, net operating profit after deduction of plant, selling and administrative expenses, but before deduction of depletion and depreciation, was $8,084,832, compared with $5,538,911 in the corresponding 1938 period.

Research and process development expenses for the first nine months of 1939 totaled $1,371,368, against $1,406,140 in the first nine months of 1938, the report disclosed. Consolidated net income does not include the company's equity in the undistributed net income of certain affiliated companies in which the company does not have a majority interest.

Carter Fabrics Company, Spartanburg, S. C., has started construction of a $1,000,000 rayon plant on the Eastern edge of South Boston, Va.

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4. Separates acids from this tar . . .
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Coaltar Chemicals

Other Intermediates

—*Continued from page 33*

ness, and endeavored to keep purchasing confined to regular channels. Prices held the same.

Orthotoluidine.—Quotations were well sustained in the market. Spot and contract withdrawals were consistent, with most consumers making necessary replacements.

Phthalic Anhydride.—The call from principal consuming channels, while displaying some slackening, was fairly steady and the market remained in a firm position.

Xylidin, Mixed.—A firm price tone remained in evidence during the period under review. Demand was steady.

Coaltar Colors

Shipments moved against contracts at a favorable pace last week. Practically all important consumers entered the market for necessary replacements. Operations in the textile, paper and other large consuming channels were maintained at high levels, and most of the buying represented actual needs rather than any desire to build up inventories. Sellers still refrained from accepting all business, and restricted purchases of most consumers to normal requirements. Quotations underwent no changes, however, the position of most materials remained firm. Several new listings for coaltar colors used in the food, drug and cosmetic industry were released under the terms of the new Federal Food, Drug and Cosmetic Act. The new listings were made under the three separate standardized forms devised by the Department of Agriculture covering applications for the certification of coaltar colors. Under the new system the prefix "FD&C" indicates colors harmless and suitable for use in foods, drugs and cosmetics; "D&C," colors harmless and suitable for use in drugs and cosmetics, and "EXT D&C," colors harmless and suitable for use only in externally applied drugs and cosmetics. While all colors have not been certified as yet, the complete list will be available by the end of the year when the new law becomes effective. Further amendments to the regulations for certification of coaltar dyes for use in foods, drugs and cosmetics will be considered at a public hearing called by the Food and Drug Administration for November 20.

American I.G. Name Now General Aniline & Film Corp.

The American I. G. Chemical Corporation has changed its name to the General Aniline & Film Corporation. This action was voted by the directorate October 30 following a merger with its wholly-owned operating subsidiary, General Aniline Works, Inc., which unit just prior to the consolidation, had changed its title to the General Aniline & Film Corporation.

The operating unit heretofore represented by General Aniline Works, Inc., with plants at Linden, N. J. and Rensselaer, N. Y., will continue under the same management and will be operated as General Aniline Works division of General Aniline & Film Corporation. The executive offices of the corporation will shortly be moved to 230 Park avenue, this city.

The officers of General Aniline & Film Corporation elected October 31 are:—

President, D. A. Schmitz; vice-president and treasurer, H. S. Williamson; vice-president and secretary, W. H. vom Rath; vice-president and general manager of General Aniline Works Division, R. Hutz; vice-president and production manager of General Aniline Works Division, H. Aickelin; vice-president, E. M. Clark; assistant secretary and assistant treasurer, K. Milde; assistant treasurer, R. H. Baxter; assistant secretary, H. J. Kamena.

British Appoint Waddington Controller of Dyestuffs

London, Nov. 1, 1939

Sir Robert Waddington has been appointed British Controller of Dyestuffs. An order has been made by the Board of Trade prohibiting the sale or supply of imported dyestuffs and intermediates except under authority of a license. Sir Robert Waddington was formerly a member of Parliament. He is chairman of the dyestuffs advisory licensing committee and of the dyestuffs development committee.

Hartsville Print&Dye Works Plan For Reorganization Confirmed

Charleston, S. C., Nov. 1, 1939

Federal Judge Myers has confirmed new plan of reorganization for Hartsville Print & Dye Works, subsidiary of U. S. Finishing Co., under bankruptcy act. Plan was accepted by holders of $427,309 of the $435,995 of unsecured claims over $200 each and by holders of 2,174 of 2,750 shares of preferred stock and holders of 11,268 of 15,000 shares of common stock.

Japanese Chemical Exports To Latin Amer. Reported

—*Continued from page 5*

ties exported during 1937 to Latin America and the United States:—

	Exports to Latin America. (Kin)	Exports to United States. (Kin)
Acid, acetic	350,000	.....
Arsenious	606,700	75,200
Formic	16,600	.....
Oxalic	200	.....
Sulphuric	5,700	.....
Alum	50,200	.....
Ammonium sulphate	861,500	.....
Aromatic chemicals, n.e.s.	1,600	100
Bleaching powder	303,100	305,700
Calcium acetate	.....	37,800
Arsenate	1,828,700	559,400
Carbide	3,586,000	.....
Carbonate	12,500	99,500
Chloride	405,100	33,900
Cyanamide	.....	592,700
Camphor	30,400	673,500
Cresote	.....	41,143,700
Dentifrices	40,400	9,300
Dyes, sulphur black	40,600	.....
Synthetic, n.e.s.	63,700	37,400
Fertilizers, prepared	.....	3,360,700
Other	.....	16,110,500
Glue	18,600	126,200
Heliotropin	.....	5,200
Insecticide, liquid	95,300	27,400
Powdered	126,900	144,100
Inks, printing	5,000	.....
Isinglass, vegetable	75,900	506,100
Lead arsenate	1,219,600	.....
Red	46,500	.....
Linalyl acetate	.....	53,900
Magnesium Carbonate	17,400	1,800
Matches	78,400	380,500
Medicinals, prepared	†15,200	7,100
Menthol cone	†11,200	512,000
Crystals	7,100	363,200
Metal powders	200	.....
Naphthalene	12,200	5,900
Oil, camphor	.....	988,600
Peppermint	6,700	7,900
Paints	81,100	1,500
Phosphorous	29,200	21,300
Sulphide	7,600	19,600
Potash Bichromate	8,300	.....
Chlorate	.....	83,300
Pyrethrum	88,100	13,173,900
Pyroxylin plastics	519,300	37,100
Soap, toilet	†54,000	12,000
Washing	64,000	8,300
Soda ash	1,986,300	.....
Bicarbonate	1,714,800	302,600
Caustic	1,326,700	.....
Cyanide	304,200	388,600
Ferrocyanide	.....	483,000
Silicate	13,200	.....
Sulphur	1,700	.....
Superphosphate	83,900	5,363,800
Toilet creams	21,300	4,700
Powders and pastes	42,400	2,500
Preparations, n.e.s.	64,100	231,000
Wax, vegetable	3,800	3,076,600
Zinc oxide	7,100	.....

* Dozens; † Value in Yen.

Ethyl Gas Formula Suit Set for December 4

—*Continued from page 5*

kenzie charged, had been offered by the defendants because Dr. Gerlach "controlled a cancelled $1,000,000 bribery check."

This check, Mr. Mackenzie charged, had been paid originally to a Washington patent attorney, to whom Dr. Francis A. Howard, president of the Howard-Vaughan Company, had confided his formula for "Vitagas" in 1916. Mr. Mackenzie also contended that the defendants prevented Dr. Howard from testifying. A blanket denial of all charges was made by the defendants.

U. S. Chemical Exports Gained 40% in September

—*Continued from page 5*

Items recording losses during September, compared with the corresponding month of last year, included sulphur, exports of which declined in value from $1,321,000 to $874,000; industrial explosives, from $396,400 to $269,200; and crude drugs, from $190,600 to $90,600. In the latter classification, the decline was due entirely to smaller shipments of ginseng to the Chinese market.

With the exception of potash, imports of most chemicals and related products were well maintained in September with many raw material items, including codliver oil and other medicinal substances, and essential oils recording sharp increases.

All types of medicinal product imports recorded gains in September, with the total value reaching $2,050,000 during the month compared with $1,380,000 in September of last year. In this group imports of codliver oil increased in quantity from 340,500 gallons in September, 1938, to 1,070,000 gallons during the current September; agar-agar from 30,800 to 55,000 pounds; crude drugs, in value, from $853,000 to $1,013,000; and other medicinal materials, including quinine, from $280,650 to $508,300. In the latter group, imports of quinine in its various forms, not including cinchona bark, increased in quantity from 192,000 ounces in September, 1938, to 649,000 ounces during the month under review.

Other items in the chemical and related product list imports of which increased in September included oiticica oil, receipts of which increased in quantity from 865,600 to 966,000 pounds; perilla oil, from 2,505,000 to 5,560,000 pounds; casein, in value from $2,950 to $100,000; tankage, from $108,000 to $217,000; gums, resins and balsams, from $484,500 to $687,000; essential oils, from $302,500 to $382,300; vegetable dyeing and tanning materials, from $446,000 to $495,000; and matches, from $27,000 to $37,700.

Receipts of potash products aggregated 15,877 tons valued at $408,111 in September, against 42,391 tons valued at $1,302,000 in the corresponding month of 1938. Imports of all types of fertilizer materials, including potash, were valued at $1,983,000 in September compared with $3,427,000 in the same month of 1938.

Declines occurred with coaltar products, including dyes, receipts of which declined in value from $1,623,000 in September, 1938, to $1,494,000 during the month under review; and industrial chemicals, from $1,732,300 to $1,254,000.

Other chemical and related products items showing losses in September compared with the same month of 1938, included flaxseed, receipts of which declined in quantity from 1,346,000 to 452,000 bushels; tung oil, from 8,789,000 to 5,713,000 pounds; carnauba wax, from 720,600 to 705,000 pounds; glue stock, in value from $124,000 to $107,500; beeswax, from $55,000 to $48,500; industrial explosives, from $31,550 to $8,500; and soaps and toiletries, from $190,000 to $170,000.

Donald D. Bradley, president of the Rolls Chemical Company, Buffalo, addressed the Lewiston-Queenston Rotary Club October 25 in that city, stating that there is very little hope generally that the United States will derive any long-term benefits from the European war.

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Paint, Varnish, Lacquer Materials

Next Year's Prices Start to Draw Attention of the Trade—General Market Less Active—Casein Easier, Varnish Gums Mixed — Naval Stores Quiet

The interest of the raw paint material trade was beginning to turn toward the 1940 contract price situation last week, with no definite stands taken as yet. Final decisions on prices will not be made until late this month or early in December, but the observations of men in the trade gave indications of what to expect.

Carbon black producers, who have suffered by a very low price, were optimistic regarding the possibility of an advance next year. There was a good chance that bone and lamp black prices would remain unchanged for the first quarter of 1940, at least. One major producer of ester gum was contracting with regular customers at an unchanged price for 1940 delivery. Pigment manufacturers had made no decision but there was a distinct possibility that titaniums, lithopone and zinc oxides would be priced at the present levels for delivery during the first quarter of 1940.

Conditions surrounding the market were fairly steady last week. Casein was easier and the fine domestic mesh and Argentine material were reduced. Varnish gums were being shipped more regularly and prices were seeking their normal levels. Titanium and zinc oxide deliveries were good and carbon black continued in good demand. Glues were attracting consumers' interest and prices were strong.

Rosin and turpentine were fairly active in primary and local markets. The tendency of turpentine and some grades of rosin was downward at times, but changes in prices from day to day were narrow and the undertone was regarded as steady or firm. Offerings in Southern markets were light. There was a further noteworthy shrinkage in supplies held by the government under loans to producers.

Shipments of tires in September amounted to 5,565,356 units, compared with 4,919,505 in August and 3,887,604 in September, 1939, according to the Rubber Manufacturers Association. Production last month was 4,984,505 units, against 5,491,664 in August and 3,915,873 in September of last year. Tires in the hands of manufacturers on September 30 were estimated at 8,334,660 units, compared with 8,890,793 on August 31 and 8,022,430 on September 30, 1938.

Imports of casein into the United States during the first nine months of 1939 increased to 3,406,813 pounds, valued at $131,561, from 288,195 pounds, valued at $19,910, during the corresponding period of 1938.

Price Changes

Prices were changed during the past week as follows:—

Advanced

Gum copal, some Congos, c.l., ⅝c. to 4½c. per lb.

Reduced

Casein, dom., 80-100 mesh, ½c. per lb.
Argentine, 2c. per lb.
Gum, copal, some Congos, c.l., ⅝c. to 3½c. per lb.
dammar, c.l., ½c. to ⅝c. per lb.
Rosin, gum, medium, 10c. to 20c. per 280 lbs.
Turpentine, gum, 1c. per gal.

Comparative Values

Index numbers compiled from eleven typical paint and varnish materials on the basis of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
131.2	**131.2**	**131.2**	**131.1**

Market news that may have developed after this report was sent to press will be found on page 4.

Metallic Lead and Zinc

The pig lead market was stable last week with the interest on the part of buyers a little lighter than the previous week. Consumption was still satisfactory and several suppliers reported they had sold their week's quota. The price was firm and unchanged at 5.50c. to 5.55c. per pound in New York and 5.35c. per pound, basis East St. Louis. The week saw no change in the status of slab zinc. Demand was still fairly light and shipments small. The price continued firm, however, at 6.50c. per pound, basis East St. Louis.

Lead.—Prevailing spot prices at New York, East St. Louis and London for the period from October 28 to November 3, inclusive, were as follows:—

	Pigs		
	Per pound		Spot. London. Per ton
	New York.	E. St. Louis.	£ s. d.
Saturday	$0.0550@.0555	$0.0535	..* .. ..
Monday	.0550@.0555	.0535	.. .. ..
Tuesday	.0550@.0555	.0535	.. .. ..
Wednesday	.0550@.0555	.0535	.. .. ..
Thursday	.0550@.0555	.0535	.. .. ..
Friday	.0550@.0555	.0535	.. .. ..

* London exchange closed.

Zinc.—Prevailing spot prices at New York, East St. Louis and London for the period from October 28 to November 3, inclusive, were as follows:—

	Slabs		
	Per pound		Spot. London. Per ton
	New York.	E. St. Louis.	£ s. d.
Saturday	$0.0690	$0.0650	..* .. ..
Monday	.0690	.0650	.. .. ..
Tuesday	.0690	.0650	.. .. ..
Wednesday	.0690	.0650	.. .. ..
Thursday	.0690	.0650	.. .. ..
Friday	.0690	.0650	.. .. ..

* London exchange closed.

Pigments

Antimony White.—Demand was at a fairly good level but producers continued to limit sales and curtail shipments. The nominal price of 12½c. to 15½c. per pound, f.o.b. Texas, continued without revision.

Litharge.—In company with red lead, there was a fair demand from certain lines of consumption but the paint industry's takings continued to be moderated. Prices were not revised and reflected the steady pig lead market.

Lithopone.—Spot buying and takings against contract slowed from the good week reported in the last issue. Major producers were beginning to think about 1940 contracts but no word was given out regarding them.

Orange Mineral.—The demand was off but it did not fall below the level of the previous week. Similar to the other oxides the price was steady and unchanged.

Red Lead.—The market was in a very steady position reflecting the firmness of the metal. Demand from the battery trade, which were nicely sized during last month, was lighter last week and the paint trade's purchases were also more conservative.

Titanium Pigments.—With the quoted price guaranteed until the end of the year by one major supplier, interest in the trade last week was centered on contract prices for 1940. No decisions on next year's prices were reported. Buying interest last week was at a good level, a continuance of the favorable sales volume that had been seen practically since the beginning of the year.

White Lead.—The demand for shipments of the dry material was at a lower level last week. According to corroders, it appeared that manufacturing demands for this pigment had passed their peak and were now declining. Export business was only fair. Pricewise, there was no change.

Zinc Oxides.—There were no reports of a let-up in the favorable requests from consumers for immediate shipment for paint use. The call from the linoleum and runner's trade was also good. Pricewise the market was without new feature and it was expected that contract prices for 1940 would be announced in the near future.

Fillers and Extenders

Barytes.—The call for delivery in the local area was routine and prices continued unchanged.

Charcoal.—The market tapered off slightly but there was still a fairly good call for shipments. The advances re-

Current prices on paint, varnish and lacquer materials are given in the alphabetical list of prices beginning on page 7

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ported last issue apparently did not discourage buyers.

China Clay.—The consuming interest in the lump material was sluggish, small tonnages being shipped to the trade in irregular fashion. Despite this, the price was steady and unchanged.

Gypsum.—Demand was at about the same level as the previous week and the price was steady.

Talc.—With the imported product at a premium and future shipments uncertain, the domestic material was in good call last week. The price of the latter was firm.

Whiting.—Belgium stocks were attracting a good interest from the trade and the domestic product was also in good demand. Prices were firm.

Wood Flour.—The linoleum and plastic manufacturers were showing less interest in offerings of this item during the week. Prices on the imported product were nominal.

Varnish Gums

Copals.—The market was returning to a more normal basis and the appearance of more regular shipments caused prices to seek their proper levels. A total of twenty revisions were made, six of them advances and the rest reductions. The price changes affected various grades and types of Rasak, Hiroe, Batu, Pontianak and Congo gums. The advances ranged from 3/8c. to 4½c. per pound for car lots while the reductions ranged from 3/8c. to 3½c. per pound.

Dammars.—A similar situation existed here, with the trade becoming more normal and prices seeking proper levels. Four Singapore gums were lowered, the reductions ranging from ½c. to 5/8c. per pound for car lots.

Synthetic Resins

Ester gum was offered at 6½c. to 6¾c. per pound in the local market but the consumers were not showing a great deal of activity. No official reports were issued regarding contract prices for the first quarter of 1940 but it was learned from an authoritative source that one major company was contracting with regular customers for delivery during the first three months of 1940 at its unchanged price of 6½c. per pound.

Bronze Powders

Producers of aluminum powder and paste reported unchanged market conditions last week, with price for all grades firm and at previous levels. Bronze powders, which were sluggish items two weeks ago, spurted during the period and the market took on a bit more firmness.

Driers

Material was moving against contracts at a fairly good rate last week. Spot demand was slack, but this was expected at this time of year. Prices were firm for all types of material.

Dry Colors

Bone Black.—The spot market was unchanged last week but there was a slightly better inquiry for future deliveries. The price was firm. No reports were issued regarding contract prices for 1940 but indications were that they would be unchanged for the first quarter of the year, at least.

Carbon Black.—Sales volume continued at a high peak during the period under review and the price was firm. Contracts prices for 1940 were not officially decided upon at last reports and probably won't be announced until late this month or early in December. An authoritative source reported, however, that the trade was optimistic regarding an advance in quotations when the contracts are booked.

Cadmium Red.—The price was firm and unchanged at 75c. to $1.05 per pound with trading only fair.

Cadmium Yellow.—Demand was light with material offered at the previous price of 50c. to 55c. per pound for ton lots.

Carmine No. 40.—Interest in the market continued somewhat sluggish, which was more or less normal for this time of year. The quoted price remained at $4.85 to $5 per pound.

Chrome Yellow.—Business was duller last week but the price was firm. No announcement regarding new contract prices was made but a decision will probably be reached late this month.

Iron Blues.—Prices were firm and the demand was unchanged.

Mercuric Oxides.—Conditions surrounding the market were unchanged

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during the period under review. The price has not changed in several weeks despite the reduction in the price of the metal two weeks ago. Offerings were made at $2.41 per pound for the technical red material and $2.26 per pound for the yellow color.

Ocher.—The position of the French product has not been changed for some time now. Prices have been firm but the demand of the market has been modest.

Ultramarine.—Consumption held up fairly well since the last time this color was reviewed. Nothing has been mentioned as yet regarding new contract prices, major producers preferring to wait until the last minute before deciding, in order to meet any changes in basic raw materials.

Vermilion.—Quotations continued at $2.70 to $2.79 per pound.

Naval Stores

Southern and local markets for naval stores had a generally steady or firm tone last week although a moderate decline occurred at one time in turpentine prices, the Savannah market dropping to 26c. per gallon. Small declines also occurred in some grades of rosin. Business was on a fair scale in primary centers. Domestic consumers of rosin were not inclined to abandon a conservative course in purchasing operations owing to the prevailing uncertainty concerning political affairs at home and abroad. The movement into consuming channels on contracts apparently held up well, however, and in some instances the requirements of consumers were said to have shown some expansion in recent weeks, with the movement larger than at this time last season.

Offerings of rosin and turpentine in Southern markets continued light. There was an impression that receipts would show an increase in not distant future as the period for gathering the scrape crop is at hand. This is expected to cause some increase in the movement to primary centers and possibly afford some relief from the scarcity of dark grades of rosin that has prevailed in recent months, though any increase in supplies would prove only temporary. There was a further shrinkage in holdings of rosin and turpentine in the hands of the CCC under loans to producers, the decrease during the week ended October 27 being 12,306 barrels and 3,047 drums of rosin, and 3,817 barrels of turpentine.

Pine Products Exports Up

An increase of 4.7 percent in the value of certain naval stores was recorded during the first nine months of 1939 as compared with the same period of 1938, according to official statistics. The values of the products exported during the periods were, respectively, $8,734,173 and $8,339,642. The table below shows shipments by quantity:—

	Nine months 1938.	1939.
Gum rosin.....bbls.	387,192	405,738
Wood rosin.....bbls.	251,228	235,024
Gum turpentine.....gals.	6,122,758	6,951,998
Wood turpentine....gals.	1,422,931	1,500,058
Pine oil.....gals.	1,161,467	1,210,405

CCC Loan Holdings

The following table shows the stock of rosin and turpentine held October 27 by the CCC under loans on the 1938 crop:—

	Rosin Barrels.	Rosin Drums.	Turpentine Barrels.
Savannah	132,274	5,723	.....
Jacksonville ..	196,597	3,152	15,328
Brunswick	98,443	6,193	.....
Mobile	17,294	10,752	.....
Pensacola	28,157	760	.....
Valdosta	126,343	5,289	8,382
Totals	599,108	31,869	23,710
Pre-week ...	611,414	34,916	27,527

Gum Crop Off In Greece

Weather conditions affected this year's naval stores crop throughout Greece during the months of April, May and the early part of June, and as a result it is estimated that there will be a decrease of between 10 and 15 percent as compared with last year's naval stores crop. Preliminary estimates indicate that the yield of crude gum from this year's crop will be between 22,000 and 23,000 metric tons. Based upon this estimate this year's output of Greek naval stores will be about 79,000 American barrels of gum rosin and 24,500 American barrels of gum spirits of turpentine, according to a report from the American commercial attache at Athens.

Turpentine.—Local quotations had a downward trend at times, in company with the course of primary quotations, but changes from day to day were narrow and the undertone was regarded as steady. There was a fair inquiry, but purchases were generally limited to comparatively small or moderate quantities to fill the current or nearly requirements of consumers and dealers.

SAVANNAH, Nov. 3.—A steady tone continued to prevail in turpentine. Following is a record of the market for the week:—

	Cents per gal.	Barrels Sales.	Barrels Receipts.	Barrels Shipments.	Barrels Stocks.
*Saturday...	...	...	...	...	.....
Monday ...	27	241	295	690	24,132
Tuesday ...	26½	146	266	20	24,378
Wednesday..	26	66	427	279	24,526
Thursday...	26	56	227	40	24,713
Friday	26	101	252	...	24,965

* No trading.

JACKSONVILLE, Nov. 3.—Turpentine was quiet and steady. Following is a record of the market for the week:—

	Cents per gal.	Barrels Sales.	Barrels Receipts.	Barrels Shipments.	Barrels Stocks.
*Saturday...	..	...	...	...	.....
Monday ...	26½	271	253	129	50,365
Tuesday ...	26¼	...	199	...	50,564
Wednesday.	26	56	125	11	50,678
Thursday...	26	...	82	...	50,760
Friday	26	...	137	2	50,895

* No trading.

PENSACOLA, Oct. 28.—Turpentine was quiet. Following is a record of the market for the week:—

	Barrels Receipts.	Barrels Shipments.	Stocks.
Monday	44	13	19,704
Tuesday	110	91	19,723
Wednesday	59	...	19,782
Thursday	58	1	19,839
Friday	46	133	19,752
Saturday	10	...	19,762

CHICAGO, Nov. 3.—Fairly good interest is being maintained in the turpentine market. Five-drum lots, 34c. per gallon; five wood barrels, 39c.; single drums, 37c.; single barrels, 42c.

London Turpentine Stocks

Stocks of American turpentine in London were:—

	Nov. 3.	Previous week.	Last year.
Barrels	19,201	18,335	27,293

Rosin.—Changes in local rosin quotations were narrow last week in the absence of wide fluctuations in primary centers where the undertone appeared to be steady or firm. No broadening of business was reported in the market here, uncertainty concerning political affairs at home and abroad having a tendency to keep purchases within moderate limits.

SAVANNAH, Nov. 3.—The rosin market had a firm undertone. Following is a record of the market for the week:—

	Price per unit—Low of range quoted *Sat.	Mon.	Tues.	Wed.	Thurs.	Fri.
B	...	$4.00	$4.00	$4.00	$4.00	$4.00
D	...	4.10	4.10	4.10	4.10	4.10
E	...	5.00	5.00	5.10	5.10	5.10
F	...	5.20	5.20	5.20	5.20	5.20
G	...	5.40	5.40	5.50	5.50	5.40
H	...	5.55	5.50	5.52½	5.52½	5.45
I	...	5.75	5.70	5.70	5.70	5.62½
K	...	5.75	5.70	5.70	5.70	5.62½
M	...	5.80	5.75	5.75	5.75	5.65
N	...	5.85	5.75	5.75	5.75	5.70
WG	...	6.00	5.95	5.95	5.95	5.90
WW	...	6.35	6.35	6.35	6.35	6.35
X	...	6.35	6.35	6.35	6.35	6.35
Barrels						
Sales	...	1,255	583	552	...	318
Receipts..	...	1,063	1,435	784	1,012	516
Shipments	...	4,143	525	682	479	140
Stocks—	...	232,198	233,108	233,210	233,743	234,119

* No trading.

JACKSONVILLE, Nov. 3.—Rosin was fairly active. Following is a record of the market for the week:—

	Price per unit—Low of range quoted *Sat.	Mon.	Tues.	Wed.	Thurs.	Fri.
B	...	$3.75	$3.75	$3.75	$3.75	$3.75
D	...	4.00	4.00	4.00	4.00	4.00
E	...	5.05	5.05	5.05	5.05	5.05
F	...	5.25	5.25	5.25	5.25	5.25
G	...	5.50	5.50	5.50	5.35	5.35
H	...	5.55	5.55	5.52½	5.45	5.45
I	...	5.75	5.75	5.70	5.60	5.60
K	...	5.75	5.75	5.70	5.65	5.65
M	...	5.75	5.75	5.75	5.65	5.65
N	...	5.85	5.85	5.85	5.70	5.70
WG	...	5.95	5.95	5.95	5.90	5.90
WW	...	6.25	6.25	6.25	6.25	6.25
X	...	6.25	6.25	6.25	6.25	6.25
Barrels						
Sales ...	...	221	...	136	29	...
Receipts..	...	777	730	849	1,387	565
Shipments	...	...	100	40	115	100
Stocks—	...	336,038	336,668	337,477	338,749	339,214

* No trading.

PENSACOLA, Oct. 28.—Rosin was quiet and steady. Following is a record of the market for the week:—

	Barrels Mon.	Tues.	Wed.	Thurs.	Fri.	Sat
Receipts..	130	423	151	212	214	85
Shipments	...	...	200	...	94	816
Stocks ..	62,369	62,792	62,743	62,955	63,075	62,344

CHICAGO, Nov. 3.—Trade has been holding up fairly well in the rosin market here, with prevailing prices about steady on the whole. B grade, $7 per lot of 280 pounds; G grade, $8.55; M grade, $8.90; W.W. grade, $9.35.

Pine Oil.—The market was reported as more active though purchasing still appeared to be limited to moderate lots so far as new business was concerned. The tone continued steady.

Pitch.—Local spot prices were generally held at previous levels and the tone of the market appeared to be firm. There was a steady movement of moderate lots.

Current prices on paint, varnish and lacquer materials are given in the alphabetical list of prices beginning on page 7

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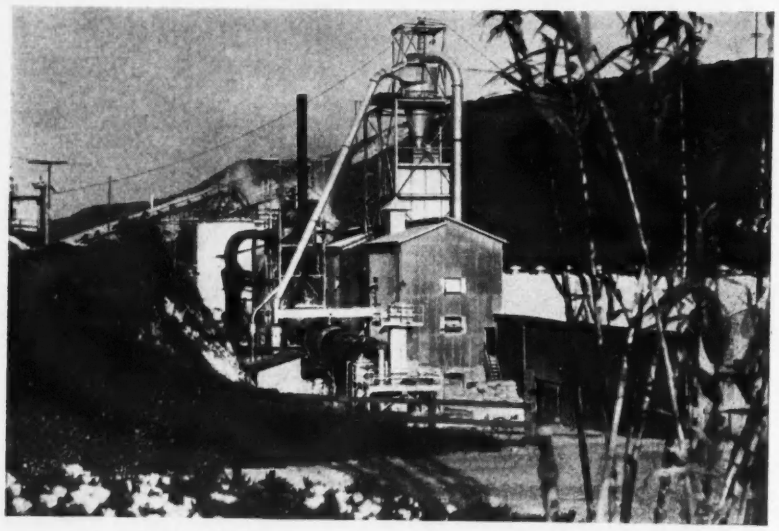

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Rosin Oil.—There were reports of a somewhat better request for small or moderate quantities for prompt shipment to local and other buyers. The market retained a steady tone in the absence of any material change in conditions prevailing in primary markets for basic material.

Tar.—No further developments were noted in the way of price changes, the market being firm at former levels. There was a steady movement into consuming channels.

Shellac

A somewhat more orderly shellac market has developed in local circles. While the demand continued good and volume was excellent, it was apparent that sellers have been catching up in deliveries against their commitments and, parallel with that, buyers for consumption have tapered off their demands considerably. However, all this was without any weakening of the price structure, and, under conditions prevailing in Calcutta, any weakening would seem to be out of the question.

Freight rates from Calcutta have been definitely advanced, adding about ⅜c. per pound to the cost of shellac landed on this market. Since the beginning of the war the rise in freights have added about ⅝c. per pound to the landed cost of shellac. Shipment costs were still hard to determine without a firm order in hand, but the best information in hand suggested that 12c. per pound would have to be paid, net cash, on the dock. Additional unescapable expense would bring the cost to the importer very close to 14c. by the time he got the goods in warehouse. Business with Calcutta was smaller last week. Spot quotations continued firm and unchanged. September importations, according to the Department of Commerce, were:—Crude lac, including seed, button, and sticklac, 2,911,620 pounds from British India; unbleached shellac, 2,755,050 pounds from British India, and 12,104 pounds from Germany; bleached shellac, 9,900 pounds from Belgium.

Lacquer Materials

Shipments continued to move at a steady pace in the market for lacquer materials and solvents last week. While some of the rush buying has subsided, sellers had sufficient number of orders booked to keep shipments at good levels. The spot position of many materials was tight, with sellers able to offer little material except against contracts. No new price developments entered the market, but quotations for all materials were well sustained. Acetone still was in a strong position, and some factors were unable to accept any new business.

Production of nitrocellulose plastic products in the United States in the first nine months of 1939 increased to 9,608,741 pounds, compared with 6,629,696 pounds in the corresponding period of 1938. Cellulose acetate products totalled 6,715,530 pounds in the first nine months of 1939, compared with 3,442,593 pounds in the similar period of 1938. Production of molding compositions in the first three quarters of 1939 amounted to 7,862,999 pounds, compared with 4,561,629 pounds for a like period of 1938.

Acetone. — Shipments continued to move at a satisfactory pace last week. The position of the market was very strong, sellers in some instances were entirely booked ahead against production. No change occurred in the prices.

Alcohol Butyl. — A steady demand prevailed in the market for the normal and secondary material throughout the past week. Prices were maintained at firm levels.

Butyl Acetate.—A firm tone characterized trading during the period under review. Shipments against contracts moved at a good pace.

Cellulose Acetate. — Interest in the market was maintained at good levels during the past week. Consumers entered the market for good size replacements against contracts. Prices were firm.

Dibutyl Phthalate. — Withdrawals were steady in this direction. Sellers were adhering to prices in force previously, and the tone of the market was firm.

Ethyl Acetate.—Demand held up well in the market, and prices were in conformity with those established previously.

Isopropyl Acetate. — Quotations were well maintained at the levels recorded the preceding period. An active inquiry prevailed, and buying against contracts was quite satisfactory.

Tricresyl Phosphate.—No change was reported in the prices, but the market was firm. Most of the business represented withdrawals against contracts.

Glues and Binders

Casein.—Easing tendencies appeared in the market last week. This was not unexpected by major suppliers, who stated several weeks ago that prices were too high and were on an abnormal basis. The 20-30 mesh material was unchanged at 20c. per pound, but the 80-100 mesh was lowered ½c. per pound to the same level as the 20-30; 20c. for car lots, 21½c. per pound for five tons to car lots, and 23c. for smaller quantities. An influx of fairly large tonnage of Argentine material stiffened the supply situation and caused a reduction of 2c. per pound in the imported product. Offerings were made last week at 15c. per pound for car lots of 20-30 mesh and 15½c. for the 80-100. French product was nominal.

Glues.—Buying was at a good level last week, but no advance was made in either the hide or bone material. Quotations were still strong.

Soybean Protein.—Demand was sluggish and prices unchanged at 14¼c. per pound for car lots and 14½c. for smaller quantities.

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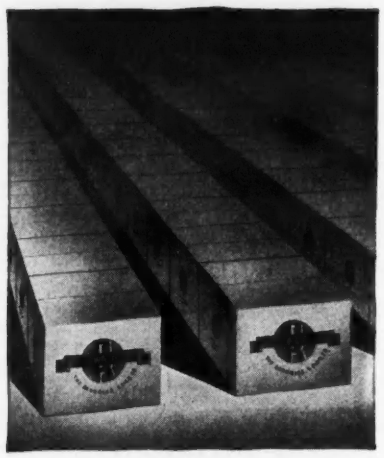

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N.P.V.L.A. Discusses Sales Promotion

—Continued from page 3

pany, Brooklyn; Southern, A. J. Anderson, of the Werner G. Smith Company, New Orleans, La.; Central, James A. Reardon, of the Reardon Company, St. Louis; Western, H. C. McClellan, of the North American Paint & Chemical Co., Ltd., Los Angeles; divisional vice-president, wholesale division, L. S. Wernli, of the Hansen Glass & Paint Co., Sioux City, Iowa.

For members of the executive committee to serve for three-year terms:—Marshall L. Havey, of the New Jersey Zinc Company, New York; L. P. Moore, of Benjamin Moore & Co., New York; E. S. Phillips, of the Devoe & Reynolds Company, New York; William Richter, of E. I. duPont de Nemours & Co., Wilmington; A. W. Steudel, of the Sherwin Williams Company, Cleveland; H. S. Wherrett, of the Pittsburgh Plate Glass Company, Pittsburgh.

In discussing sales volume in the paint industry, Mr. Trigg, in an address entitled, "What Are We Going To Do About It," pointed out that in 1929 the total volume reached approximately $600,000,000, and in using the rough figure of $2 plus as cost of application for each $1 of material, Mr. Trigg concluded that the paint industry, including material and its application, was a $2,000,000,000 industry. He pointed out that sales went down pretty low in 1932 and 1933, but said that it was possible that this year sales will get up somewhere in the neighborhood of $500,000,000. He said that this figure included sales to industrial buyers where the material was used for finishing purposes on their own production, which, he explained represents about one-third of the total sales. So that trade-sales-wise, Mr. Trigg explained, this year the sales volume should be somewhat in excess of $300,000,000.

Mr. Trigg was of the opinion that the industry has not as a whole done a good selling job. He said that the industry as a whole has not kept abreast of the times in marketing and merchandising methods, and felt that the industry has not taken advantage of the tools available to increase sales. He called particular attention to an appealing sales tool, which he characterized as a "natural" for the industry-paint styling. He related the work and activities of the Council for Paint Styling.

Following Mr. Trigg's discussion of the methods for increasing the sales volume, the convention passed a resolution, which had been presented by Delancey Kuntz, of Devoe & Raynolds, calling for the creation of a committee to work out the detailed plans of a national advertising or publicity campaign that would acquaint potential and actual consumers with the industry's products. This national advertising or publicity campaign would be separately financed from the association's current activities.

In a paper on "Cost of Distribution in the Industrial Field," by A. C. Stephan, the point was made that paint manufacturers were concentrating on securing competitive accounts rather than educating and training their distributors and salesmen to do a better job in developing new outlets.

Paul S. Kennedy, chairman of the national industrial sales committee, discussed the two schools of thought on sales among the manufacturers and buyers of industrial finishes. He said that one group of manufacturers believes in selling a maximum gallonage for a specific use; while another group believes in concentrating a maximum performance into a minimum gallonage.

C. H. Sondhaus discussed the "The Crying Need of Educating the Dealer to Become a Better Business Man." Roy A. Foulke, of Dun & Bradstreet, discussed the "Trend of Net Sales and Net Profits in the Paint, Varnish and Lacquer,„" in which he related the work undertaken by his company in determining the sales of the industry. In discussing the developments of the flax development committee of the Flax Institute the impression was conveyed that the work of the committee would be continued along the lines the committee utilized this year.

A comprehensive report of the meeting, with abstracts or full texts of reports and addresses, will be published in the November 13 issue of the Reporter.

Buffalo Paint Club Completes Fortieth Anniversary Program

Buffalo, Nov. 1, 1939

With outstanding paint company executives and civic leaders on the speaking program, the fortieth anniversary celebration of the Buffalo Paint, Varnish and Lacquer Association to be held in Hotel Statler November 10 promises to be one of the outstanding events in the history of the local organization.

Andrew S. Butler, sr., president of McDougall-Butler Co., Inc., will be toastmaster. Mayor Thomas L. Holling of the city of Buffalo will discuss the future of the paint industry in Buffalo. Roy W. Lindsay, vice-president of Pratt & Lambert, Inc., will trace forty years of progress of the paint industry in the Niagara frontier. Arthur S. Goltz, retired, an honorary member, will give an historical sketch of the club's activities and growth. Sydney H. Stilling, another honorary member, heads the committee for reception of the past presidents of the club. Otto H. Schuele will discuss the club's membership over a 40-year period.

Sydney C. Murray is in charge of the entertainment program. A huge anniversary cake will be cut with all those attending receiving a piece. Souvenirs also will be presented to those present. All past presidents of the club have been invited to attend as well as officers of the National Paint, Varnish and Lacquer Association. Presidents of the Cleveland and Toronto clubs also have been invited. Members of the Western New York Paint and Varnish Production Club have been invited and a large delegation is expected from that organization. George I. Petroe is vice-chairman of the general committee. Other committee members are Robert C. Stark, W. Robert Melville, George L. Ginther, Robert C. Boggess and Homer H. Steele.

Cleve. Paint Club Hears About Resins and Solvents

Cleveland, Oct. 30, 1939

Members present at the October meeting of the Cleveland Paint & Varnish Production Club heard Dr. C. F. Prutton of Case School of Applied Science, who spoke on the fellowship or scholarship award at Case School, which is held by George Seldon of the Cleveland club, and A. K. Doolittle, research chemist of Carbide & Carbon Corp., who presented a paper on "Recent Developments in Resins and Solvents."

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Reichhold Erects Resin Factory in Australia

Reichhold Chemicals, Inc., Detroit, recently completed construction of a synthetic resin plant in Rosbery, a suburb of Sydney, Australia. The new plant is expected to be in production about January 1. Supervision of the installation of machinery and equipment at the new plant will be made by two production engineers from the Detroit plant, who are enroute to Australia. The completion of the new plant will increase the number of Reichhold factories to seven, two in the United States and four in Europe and the new one in Australia.

Sherwin-Williams Building Plant in Buenos Aires

Sherwin-Williams Company, Cleveland, is erecting a paint, varnish and lacquer plant in Buenos Aires, Argentina, George A. Martin, president of the company, disclosed in a letter to stockholders regarding earnings in the fiscal year ending August 31, during which period the company showed a net profit of $4,463,992, equal, after preferred dividends and other charges, to $5.96 a share on the common stock. Regarding construction, Mr. Martin stated that the company has in preparation the building of a titanium plant, the total output of which will be consumed by the company. Outside of Canada, Mr. Martin reported that the company had divested itself of its plants in foreign countries, except a unit in Cuba.

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Carbide & Carbon Develops Plasticized Resin Sheets

Carbide and Carbon Chemicals Corporation, this city, a unit of Union Carbide and Carbon Corporation, has developed calendared sheets of "Vinylite" plasticized resins which have many of the advantages, and few of the disadvantages, of leather and rubber. These sheets, the company states, offer possibilities for numerous applications heretofore removed from the plastics industry. The material, suitably plasticized copolymers of vinyl chloride and vinyl acetate, can be supplied colorless or in transparent or opaque colors.

The new, highly plasticized materials are flexible to the point of withstanding folding and repeated flexing. Elongations up to 250 percent, with a tensile strength of 3,000 pounds per square inch, are readily obtained. The sheets are said to be unusually tough and show interesting elastic properties. Stretched appreciably, the sheets return slowly to their original dimensions. The new materials are made in thicknesses ranging from film, approximately 0.003 inch in thickness, up to almost any thickness desired. Stocks in thicknesses from 0.003 to 0.090 inch are available in essentially continuous lengths.

Hamtramck Paint Up Drive Used 4,676 Gallons of Paint

Hamtramck, Mich., Oct. 31, 1939

Substantial gains in painting and decorating jobs pledged in the 1939 Clean Up and Paint Up Campaign in this community, in which the 1930 census recorded 56,268 inhabitants, are revealed in the annual campaign report which has been forwarded to the National Clean Up and Paint Up Campaign Bureau, Washington. It is indicated that the amount of paint and varnish materials required by the jobs totaled 4,676 gallons of an estimated value of $14,653.75.

E.M.Waldo Joins Sales Staff Of Smith Chemical & Color

Edward M. Waldo, formerly of E. M. & F. Waldo, Inc., manufacturer and importer of dry colors, has joined the sales staff of the Smith Chemical & Color Company, Brooklyn. He will operate from the company's headquarters at 55 John street, that city. Mr. Waldo has had a long and wide experience in the color field and is well known in the paint and other consuming industries.

General Paint Co. Opened Three Branches This year

The General Paint Corporation, San Francisco, opened branches in Salt Lake City, Klamath Falls, Ore.; Missoula, Mont., and San Juan, Puerto Rico, during 1939, according to J. C. Mullins, president of the company. The company, during the year, also acquired the minority stock interest in two subsidiaries, converting these units into direct branches. Mr. Mullins reported that the company now has fifty-two branch stores.

Paint Credit Group Names Committee to Select Speakers

The Paint and Allied Industries Credit Association, this city, has appointed a special committee, headed by M. B. Weinstock, of the M. J. Merkin Paint Company, to work out a plan to provide educational topics and selected speakers on credit and collection subjects as directly applicable to the administration of such matters with member credit departments.

Trade Briefs

Eagle-Picher Mining & Smelting Company has resumed production at two Oklahoma mines, idle since 1930.

"Cellophane" cellulose film price has been reduced by E. I. du Pont de Nemours & Co., Wilmington, making the twentieth consecutive reduction in the product.

Cole & DeGraf, San Francisco, have been appointed agents for Varcum Chemical Corporation, manufacturer of synthetic resins, and for Somers Color & Pigment Company.

Pennsylvania Glass Sand Corporation has called for payment December 1, 1939, at 102½ and interest $54,500 of its first mortgage 4½ percent bonds, due December 1, 1960.

Asbestos Manufacturing Company, Huntington, Md., has filed with the Securities Exchange Commission a registration statement covering 65,700 shares of no par value common stock to be issued under a plan of reorganization.

William Krumbhaar, vice-president of Reichhold Chemicals, Inc., synthetic resin manufacturer, Detroit, addressed the Maryland section of the American Chemical Society, October 31, on "The Formation and Destruction of a Paint Film."

Bids Wanted

Alcohol:—Supplies for Eastern and Western yards; Bureau of Supplies and Accounts, Navy Department, Washington; schedule 7625, opening November 21.

Boiler Compound:—12,000 pounds; Bureau of Supplies & Accounts, Navy Department, Washington; requisition 422-NSA, opening November 6.

Cadmium Salts:—3,000 pounds; Commanding Officer, Picatinny Arsenal, N. J.; procurement 618, opening November 29.

Calcium Hypochlorite:—Supplies of; Quartermaster Supply Officer, San Antonio General Depot, Fort Sam Houston, Tex.; procurement 503-98, opening November 9.

Drugs:—111 items; Commanding Officer, St. Louis Medical Depot, Second & Arsenal streets, St. Louis; procurement 10, opening November 16.

113 items; Assistant Director, Bureau of Prisons, Department of Justice, Washington; procurement 2066, opening November 15.

Ferromanganese:—270,000 pounds for Washington; Bureau of Supplies & Accounts, Navy Department, Washington; schedule 7665, opening November 14.

Fertilizer:—Supplies for Coconut Grove, Fla.; Division of Purchases, Sales & Traffic, Department of Agriculture, Washington; invoice 7196, opening November 6.

Gasoline:—Supplies for Eastern and Western yards; Bureau of Supplies & Accounts, Navy Department, Washington; schedule 7625, opening November 21.

10,000 gallons for aviation for Anacostia, D. C.; Bureau of Supplies & Accounts, Navy Department, Washington; schedule 7618, opening November 9.

Lacquers:—Substantial quantities; contracting Officer, Materiel Division, Air corps, Wright Field, Dayton; invoice 483, opening November 14.

Limestone:—500 tons; Chief, Regional Service, Operations Division, Soil Conservation Service, Department of Agriculture, Upper Darby, Pa.; procurement PA-RO-1648, opening November 9.

Magnesium, Powdered: — 1,600 pounds; Commanding Officer, Frankford Arsenal, Pa.; invoice 602, opening November 8.

Oil, Cutting:—2,000 gallons; Commanding Officer, Watervliet Arsenal, N. Y.; procurement 223, opening November 10.

Paraffin:—31 barrels; Commanding Officer, Watertown Arsenal, Mass.; procurement 220, opening November 9.

Pentaerythrite Tetranitrate: — Commanding Officer, Frankford Arsenal, Pa.; invoice 599, opening November 8.

Silicon Carbide:—Supplies of; Bureau of Supplies & Accounts, Navy Department, Washington; schedule 8380, opening November 8.

Soap, Laundry:—2,700 pounds; U. S. Engineer Office, Federal Building, Milwaukee; procurement 107, opening November 8.

Powder:—5,430 pounds; U. S. Engineer Office, Federal Building, Milwaukee; procurement 110, opening November 8.

Toilet:—1,850 pounds; U. S. Engineer Office, Federal Building, Milwaukee, Wis.; procurement 108, opening November 8.

Sulphur, Precipitated:—3,100 pounds; Commanding Officer, St. Louis Medical Depot, Second and Arsenal streets, St. Louis; procurement 9, opening November 14.

Sulphuric Acid:— 24,000 pounds; Bureau of Supplies & Accounts, Navy Department, Washington; schedule 8524, opening November 7.

Superphosphate:—50 tons for Trumansburg, N. Y.; Chief, Regional Service Operations Division, Soil Conservation Service, Department of Agriculture, Upper Darby, Pa.; procurement PA-RO-1647, opening November 9.

Trinitrotoluene:—350,000 pounds; Commanding Officer, Picatinny Arsenal, N. J.; procurement 588, opening November 10.

Drug Chain Sales Up

Average daily sales of chain drug stores in September were 4 percent higher than in September, 1938, and 5 percent above August, 1939, according to the Bureau of Foreign and Domestic Commerce. It is estimated that sales for the first nine months were 2 percent higher in 1939 than in 1938. End-of-month inventories at cost value were 1 percent lower than in September, 1938, and 7 percent above those for August, 1939. Sales of independent drug stores in twenty-eight States increased 4 percent in September as compared with September, last year.

mineral pigments
NATURAL AND SYNTHETIC
PURE CHROMIUM OXIDES
are
STRONG - INERT - PERMANENT
C.K. WILLIAMS & CO. DRY COLORS FILLERS
C K WILLIAMS & COMPANY
EASTON·PENNSYLVANIA

Synthetic Resins

—Continued from page 25

K

Kadox (zinc oxide), black or red label, bgs., c.l., dlvd..lb. .06¼- —
l.c.l., dlvd. E. of Rockies.lb. .06¾- —
Pac. cst., ex whse.....lb. .06¾- —
bbls., c.l., dlvd.....lb. .06¾- —
l.c.l., dlvd. E. of Rockies.lb. .07 - —
Pac. cst., ex whse.....lb. .07 - —
Katalised oil, 666, dms., c.l., frt. pd..lb. .23½- —
l.c.l., frt. pd.....lb. .23 - —
Katalised oil prices are subject to the same geographical differentials as Beckacite.

Kopol, 500, dms., 1-9, frt. pd..lb. .14½- —
501, dms., 1-9, frt. pd.....lb. .12½- —
502, dms., 1-9, frt. pd.....lb. .12 - —
Kopol prices in lots of 10 dms. or more are ½c. per lb. less than above; in carloads, 1c. per lb. less; subject to same geographical differentials as Beckacite.

R-C copal, cracked nut, dms., c.l., frt. pd..lb. .09½- —
l.c.l., frt. pd.....lb. .09 - —
R-C copal prices are subject to the same geographical differentials as Beckacite.

N

*Nevillac, dms., works.....lb. .17 - —
Nevillac prices on contracts terminating June, 1939, are ¼c. per pound lower; Los Angeles and San Francisco ex whse., 3c per lb. extra.

Neville resin, R-1 nevindene, col ¼, dms., works..lb .13 -
R-3, nevindene, col. 1, dms., works..lb .12 -
R-5, nevindene, col., 1½-2, dms., works..lb. .11 -
R-6, nevindene, col., 2½-3½, dms., works..lb. .10 -
R-7, N.P.S., col. below 3, dms., works..lb. .13 -
R-8, N.P.S., col below 8, dms., works..lb. .12½- —
R-9 hard col. ½, dms., works, lb. .12 - —
R-10, hard, col., 1, dms., works..lb. .11 - —
R-11, hard, col. 1½-2, dms., works..lb. .10 - —
R-12, hard, col., 2½-3½ dms., works..lb. .09 - —
R-13, medium, col. ½, dms., works..lb. .12 - —
R-14, medium, col. 1, dms., works..lb. .11 - —
R-15, medium, col. 1½-2,dms., works lb. .10 -
R-16, medium, col. 2½-4 dms., works..lb. .09 - —
R-17, medium soft, col. 3½-5, dms., works..lb .10 -
R-19, medium soft, col. 3½-8, dms. works lb. .10 -
R-21, soft, col. 3½-8, dms., works..lb. .10 - —
R-23, special, soft, col. 3½-8, dms., works..lb. .10 - —
R-27, medium soft, col. 1, dms., works lb. .12½- —
R-28, medium soft, col. 1½-2, dms., works..lb. 11½- —
R-29, medium soft, col. 2½-5, dms., works..lb. .10½- —

Neville resin prices are freight equalized with Phila.; prices on contracts terminating June, 1939, are ¼c. per pound lower, Los Angeles and San Francisco ex whse., 3c. per lb. extra.

Nevillite, "V", water-white, 100 lbs., dms., works..lb. 1.25 - —
No. 1, water-white, 100 lbs., dms., works..lb. .65 - —
No. 2, prime-white, 100 lbs., dms., works..lb. .55 - —
No. 3, very light straw, 100 lbs., dms., works..lb. .50 - —
oil, dms., works.....lb. 1.40 - —
No. 2, heavy, refd., dms., works..lb. .10 - —
465, 110-125°C, dms., gross weight, works..lb. .03 - —
Nevinol, dms., works.....lb. .13 - —
Nuba, 1, 80°-95° C., dms., gross weight, works..lb. .0265- —
2, 100°-125° C., dms., gross weight, works.....lb. .0265- —
Nuba resin prices on contracts terminating December, 1939, are ¼c. per pound lower; Los Angeles and San Francisco ex whse., 3c. per pound extra.

P

Paradene, No. 1, 75-99°C, dms., gross wt., works..lb. .04 - —
2, 100-124°C, dms., gross wt., works..lb. .04 - —
Paradene prices on contract, terminating June, 1939, are ¼c. lower; prices are freight equalized with Philadelphia, Pa.
Pherester, color 3½-5, dms., works..lb. .17 - —
P.H.O., dms., works.....lb. .19 - —
Pilolite, milled, dms., 1 ton, works..lb. .75 -
smaller lots, works.....lb. .79 - —
unmilled, dms., 1 ton, works.lb. .66 - —
smaller lots, works.....lb. .69 - —

Kadox—Vinylite

R

Resinous oil, No. XI, dms., works..lb. .019 - —

S

Super-beckacite, pure phenolic, 1001, dms., 1-9, frt. pd..lb. .31 - —
1003, dms., 1-9, frt. pd....lb. .30 - —
2000, dms., 1-9, frt. pd....lb. .26 - —
2050, dms., 1-9, frt. pd....lb. .23 - —
2667, dms., 1-9, frt. pd....lb. .21 - —
3000, dms., 1-9, frt. pd....lb. .48 - —
3005, dms., 1-9, frt. pd....lb. .45 - —
Super-beckacite prices in lots of 10 dms, or more are ½c. per lb. less than above; in carloads, 1c per lb. less, with exception of 3,000 and 3005 where 10 dms. are 1½c. less and carloads 3c.; prices subject same geographical differentials as beckacite.

Surfex, bgs., c.l., frt. alld. up to 25c. per 100 lbs..ton.35.00 - —
BB, bgs., c.l., frt. alld. up to 25c. per 100 lbs..ton.40.00 - —

V

Vinylite AYAA, AYAF, AYAT, dms 200 lbs., f.o.b. cars, works, frt. paid by seller to destination, E. of Mississippi river..lb. .45 - —
smaller lots, works.....lb. .60 - —
VYHF, dms., 200 lbs.. works, lb. .55 - —
smaller lots works... ...lb. .66 - —
VYHH, dms., 200 lbs.. works.lb. .57 - —
smaller lots, works. .....lb. .67 - —
VYLF, dms., 200 lbs., works.lb. .55 - —
smaller lots, works.....lb. .65 - —
VYNR, dms., 200 lbs., works.lb. .55 - —
smaller lots, works.....lb. .65 - —

Foreign Trade Openings

Correspondence in regard to any of the following trade openings should be addressed to the Bureau of Foreign and Domestic Commerce, Washington, D. C., or to any district office or cooperative office of the bureau, and not to this publication. When writing give the number of the item:—

Alcohol, Ethyl:—Montevideo, Uruguay; agency (4308).
Dyes, Aniline:—Montevideo, Uruguay; agency (4308).
Chemicals, Industrial:—Mexico City, Mexico; agency (4343).
Chemicals, Textile:—Montevideo, Uruguay; agency (4308).
Glycerin:—Athens, Greece; purchase (4340).
Insecticides:—Charleroi, Belgium; purchase (4339).
Paints:—Rio de Janeiro, Brazil; purchase and agency (4299).
Pharmaceuticals:—Alexandria, Egypt; agency (4262).
Pharmaceuticals:—Charleroi, Belgium; purchase (4339).
Polishes:—Oslo, Norway; agency (4267).
Polishes:—Sao Paulo, Brazil; purchase (4292).
Resins, Synthetic:—50 tons; Alexandria, Egypt; purchase (4261).
Soda Bicarbonate:—Reykjavik, Iceland; purchase (4341).
Soda Pyrophosphate:—Reykjavik, Iceland; purchase (4341).
Tartaric Acid:—Stockholm, Sweden; purchase (4258).
Turpentine:—Cork, Ireland; purchase (4342).

Steel Barrel Output Up

Production of heavy type steel barrels and drums in September amounted to 1,163,465, against 826,941 in August and 783,592 in September a year ago. Shipments in September totaled 1,166,980, against 825,551 in August and 759,188 in September a year ago. Stocks at the end of the month totaled 30,892, compared with 34,407 in August and 60,160 in September last year. Output of light types totaled 254,041 in September, against 201,567 in August and 160,009 in September, 1938. Shipments in September amounted to 221,525, against 197,976 in August and 160,995 in September last year. Stocks at the end of September reached 41,870.

Brazil Creates Council To Regulate Imports, Exports

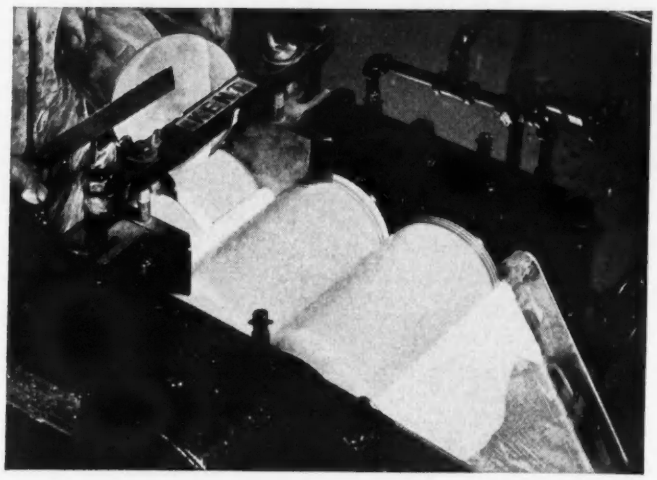
The National Economic Defense Council has been created by Brazil with power to regulate imports and exports. The council is also empowered to foster the exportation of products abroad; to reach agreements with other governments for the barter of merchandise; to decide matters affecting exports and imports, and to revise existing Brazilian restriction on the production and exportation of raw materials in general.

Fluid Flow Meters Discussed

The subject of fluid flow measurement by head type metering elements is discussed in the first of a series of booklets labeled "Instruments' Little Texts" published recently by the Instruments Publishing Company, Pittsburgh, Pa. In addition to this description of the behavior of venturi tubes, orifices, nozzles, and Pitot tubes in flow meters, the volume also contains an article describing the new trends in rate-in-flow measurement. Copies of the booklet, costing fifty cents each, may be secured from the publisher, 1117 Wolfendale street, Pittsburgh, Pa.

REICHHOLD

SYNTHETIC RESINS



THE COMPLETE LINE FOR FORMULATORS

Reichhold's complete line of synthetic resins is a preferred source of these invaluable aids to paint, varnish and lacquer formulators. And the reason is not hard to discover.

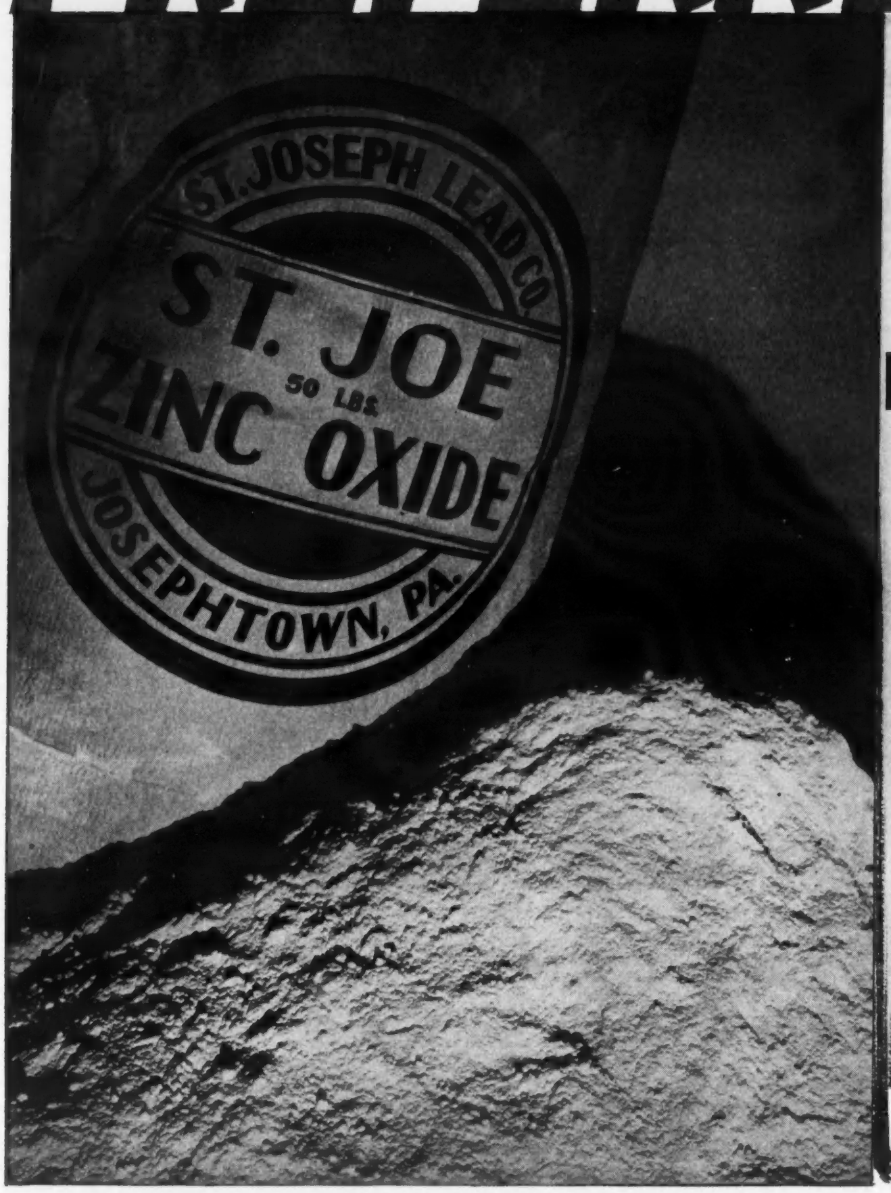
Reichhold has long been a leader in the development of synthetic resins—products of the exact science of chemistry. And it now offers a synthetic for practically every formulating need, including in its line alkyd, phenolic and urea resins, processed copals, ester gums and synthetic oils.

These synthetic products, developed in the Reichhold research laboratories, are enabling formulators to produce better, more uniform coating materials. It is the continued work of this research staff that maintains the marked superiority of Reichhold's synthetic resins.

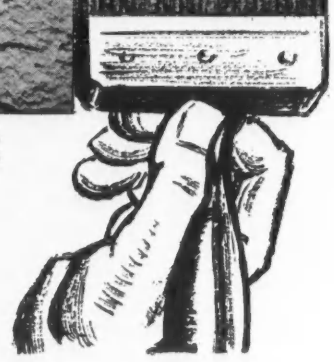
REICHHOLD CHEMICALS

INCORPORATED, DETROIT, MICHIGAN

THE PREFERRED



ZINC OXIDE for PAINT



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PLANT AND LABORATORY, JOSEPHTOWN, BEAVER COUNTY, PA.

Federation of Paint and Varnish Production Clubs

Eighteenth Annual Convention: Chicago, October 25 to 27, 1939

Review of research undertakings by local constituents of the Federation of Paint and Varnish Production Clubs and the work done under its several scholarships, with plans for their expansion, featured the eighteenth annual meeting of the federation October 25 to 27 in Chicago. Consideration of research problems and programs was particularly directed to the development of materials to replace those mainly obtained from abroad and now constricted in supply.

Naturally, chinawood oil got a deal of attention. This was crystallized in a special question laid before the convention for discussion:—

A. E. Stauderman
Retiring F.P.V.P.C. President

Due to wood oil shortage is it necessary to recommend:—

(a) Changes in present Federal specifications for spar varnishes in regard to hot or cold water and alkali resistance tests?

(b) Elimination of a specified wood oil content in Federal specifications?

Presenting this question, President A. E. Stauderman said that the answer to the first part depended on whether water resistance — alkali resistance was regarded as a matter for special formulation—could be assured by the use of materials other than chinawood oil. It was brought out that various State specifications for traffic paints call for chinawood oil, and this was regarded as unnecessary and uneconomical. The opinion was that savings for consumers could be effected through the use of other materials, and in the belief that the practicability of this had been demonstrated by research the convention voted that it consider no change necessary with respect to resistance to hot or cold water.

On the basis of the same belief and to provide recognition for the results of research, the convention voted that in all Federal specifications calling for chinawood oil there be added the words, "or suitable substitute."

The general business of the convention was directed by the president, Arthur E. Stauderman, of the Devoe & Raynolds Company, Louisville. The presentation of the technical papers which occupied the greater part of the program was under the supervision of Robert E. Prince, of James B. Day & Co., Chicago, chairman of the program committee. The questions-and-answers period, or open forum, was conducted by Robert J. Smith, of the Indianapolis Paint & Color Company, Indianapolis, chairman of the plant managers' committee.

This year's paint show was voted the best ever. The exhibits were obviously better arranged; there was more room to inspect them; and the longer convention period afforded more time for such inspection; and this was well utilized. J. F. McMenamin, of Felton, Sibley & Co., Philadelphia, was chairman of the paint show committee. He introduced exhibitors to the convention and told the production men what they could see at the several booths. Dr. R. J. Moore, of the Bakelite Corporation, responded for the exhibitors.

Attendance at the convention—the official registration was 854—was far and away a record-maker.

President's Address

Coordination and cooperation with other departments of the paint, varnish, and lacquer industry were urged upon the production men by President Stauderman in his official address. With reference to this he said:—

The custom of holding "Executive Night" meetings is growing more popular and should be encouraged. This practice is not only good sense but indicates thoughtfulness and personally sound judgment. There is need for greater cooperation between executives and the local clubs, but the seed has long since been planted. Every year we find a greater number of executives attending our sessions, which we consider a compliment and an incentive.

Many of our older members have now achieved posts of greater responsibilities, and we like to believe that their progress is in some part due to their interest and devotion to federation affairs and problems. At least we are sure of the fact that such men being what they are could not have been anything else but loyal to the federation. Their places in the technical field are being taken by the younger men of equal intelligence and modern ideas. Many such men are becoming members of our organization. We are delighted to note the high standard of technical training they possess. We know that many of them in turn will move up the ladder of success in our industry, and their places will be taken by younger men once again. It is therefore of prime importance that each firm realize the changes that are constantly taking place and that they permit and encourage new blood in the federation.

The need of more informal round table discussion is recommended. It is of interest to note that several of the more progressive clubs include such a feature in their yearly program. Some devote a portion of each meeting to a discussion of questions, while others use an entire meeting or two a year for this purpose, at which meeting no outside speaker is present. By repeated reminder we hope to restore this function to its proper place of importance in local club meetings, keeping in mind that this feature represents one of the fundamental reasons for the existence of the federation.

When our members, technically minded though they may be, demonstrate that they can think and work on problems other than those encompassed by our own sphere, yet directly related, the value of the federation will be greatly enhanced. It is a simple matter to become one-sided, and out of step, with the industry. It is my firm belief that we should devote some of our time to the consideration of the other fellow's problems. It would be to our distinct advantage to have at least a speaking acquaintance with such subjects as sales and sales psychology, marketing, purchasing, management and finance. Present-day business concepts require a greater understanding of all phases of business. Nowhere is this more true than in our industry, despite the belief that this is the age of specialists.

Such subjects were the basis of my message to the various production clubs this year, and they are abstractly repeated here without fear of repetition. I firmly believe these simple facts are the basis for sound and intelligent growth not only for the federation but for each member thereof.

Mr. Stauderman began his address with an expression of appreciation for the work of his associated officers and the members of the committees. He closed it with the declaration of an optimistic belief in the value of technologic study and work in the future of the industry, saying:—

Our industry is truly an interesting one, responding quickly to economic and political pulsations both at home and abroad. For many of our raw materials we still depend on foreign sources of supply, generally because the abundance in which they occur makes them economically preferable. Thought of synthetic development in times of unrestricted commerce is therefore often half-heartedly sponsored or discouraged. True, many important materials because of whims of nature or because of native geological formations, make us dependent on foreign sources of supply.

While the age of scientific pioneering is still only in its infancy, when prompted by necessity, it matures rapidly. The thrill of accomplishment is the goal legions of research men work toward, and success is rewarding their efforts. Entirely different processes have been developed and replacing materials provided, many of which because of their general excellence cannot be classed as substitutes. This stimulus has already placed us years ahead of the natural scientific development.

Defeatism, recently described by Dr. James D. R. Fox of Union College as the scourge of our youth of today, is not insurmountable nor should it exist. It does not, nor can it exist in the realm of the scientist as long as the pioneer spirit and the will to work remain the natural heritage of free men.

Robert E. Prince
New F.P.V.P.C. Vice-President

F.P.V.P.C. Officers for 1939-40

President, Robert J. Smith, of the Indianapolis Paint & Color Company, Indianapolis.

Vice-president, Robert E. Prince, of James B. Day & Co., Chicago.

Treasurer (re-elected), C. W. Clark, of E. I. du Pont de Nemours & Co., Wilmington, Del.

Secretary (re-elected), George B. Heckel, 901 Cunard building, Philadelphia.

Other members of the executive committee, Walter F. Kuster, of the Carpenter-Morton Company, Everett, Mass.; E. L. Gott, of the Gilman Paint & Varnish Company, Chattanooga, Tenn.; H. E. Hancock, of the Sewall Paint & Varnish Company, Kansas City, Mo.; H. Eastwood, of the R. N. Nason Company, San Francisco.

The New President

Robert J. Smith, the 1939-40 president of the Federation of Paint and Varnish Production Clubs, is assistant general manager for the Indianapolis Paint & Color Company, Indianapolis. He has been connected with that company since 1929.

Mr. Smith was born in Indianapolis June 14, 1909. He attended the public schools in that city and subsequently completed the course of studies at Butler University. His father, M. H. Smith, a chemist, had been connected with the production department of the Indianapolis Paint & Color Company for a number of years—he still is—and took the boy into his department in what the younger man now says was a "very menial capacity." An apt pupil with excellent tutoring, the son made notable progress in paint technology which brought appreciation and recognition.

Mr. Smith's interest in his calling has always been broad, and this has made him quite active in production club affairs. He has been treasurer, secretary, vice-president, and president of the Cincinnati-Dayton-Indianapolis-Columbus Paint and Varnish Production Club. During the past year he was vice-president of the Federation of Paint and Varnish Production Clubs and chairman of its plant managers' committee, presiding in the latter capacity at the open forum in this year's convention. He was also a member of the advisory committee, and in previous years had served on the executive, paint show, program, and publicity committees. His industrial interests spread beyond the production aspects, and he has been president of the Indianapolis Paint, Varnish and Lacquer Association.

Mr. Smith and Miss Margaret L. Holtman were married in 1935. They reside at 1315 North Royal street, Indianapolis. Mr. Smith is a Mason; he belongs to the Indianapolis Real Estate Board, the Indianapolis Chamber of Commerce, and the Optimists and Scientific clubs; and he plays golf and goes fishing.

Robert J. Smith
New F.P.V.P.C. President

N.P.V.L.A. Message

Appreciation of the value of the work of the technical men of the industry and of its coordinated application through the federation and its clubs was heartily expressed by Ernest T. Trigg, president of the National Paint, Varnish and Lacquer Association. In a particular plea to the technical men Mr. Trigg asked that they interest themselves individually in the furtherance of his association's recommendation that the composition of the more popular trade-sales paints and related products be given on the label.

This recommendation, he said, was based on the belief that the consumer was entitled to some information with respect to what he was buying, and that it was more desirable that manufacturers provide them with such information rather than that the activities of so-called "consumer" pressure groups lead to legislative mandates that would narrowly and unreasonably "standardize" paints and choke industrial progress through technical initiative.

Mr. Trigg also urged that paint production be directed to the real service of the public through providing quality goods at reasonable prices. He asked that in the enforced search for replacement materials quality of the finished product be the primary objective. He advised that when a satisfactory replacement material once was provided and the material replaced again became more normally available, the uncertainties of the latter be not too quickly forgotten, and that due consideration be given to the new material as a permanent replacement.

The chinawood oil situation was reviewed briefly by Mr. Trigg, who said that his information led him to assume that consumption of the oil had been reduced up to 50 percent through the use of substitutes. He told of the efforts of various governmental departments to obtain release of chinawood oil at Chinese ports and of the work of his association in this connection. A large cargo of this oil, he said, was expected to reach the United States about the middle of December.

The Litter

To Executives and Production Club Members Who Did or Didn't Go to Chicago

From Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, and District of Columbia

The raw material suppliers, including our principals, are making a decided effort at this time to avoid unnecessarily increasing prices of their products; in fact keep them at a reasonable level and thus avoid upsetting the general business economic picture anymore than is actually necessary.

It is a fact that not only in the raw material field but in your own finished products, we have been subject to vicious competition for several years. The increases up to date, have not been caused entirely by war conditions (except to a very small degree) but on the other hand because normal domestic consumption has become better and business conditions were generally on a firm and upward trend before the declaration of war, all business houses are taking this opportunity of eliminating the selling of their products at "below cost" or "no profit" to a level where they can now receive a fair, nominal return on their investment.

You, the customer, too, have been prone to keep your inventory below par, with a result that as soon as business firmed up, the demand was accentuated, and a normal increase in price followed.

We have been in almost daily consultation with our various principals, deciding questions as to policy, price, production, etc., and I am pleased to announce that each has decided on a policy of maintaining as low prices as possible, and in following this course, they are taking this opportunity of making good-will with our consuming customers.

ANDERSON-PRICHARD OIL CORP.

OKLAHOMA CITY, OKLA.

Petrobenzol, Troluoil, Apcothinner, No. 10 Mineral Spirits and special cuts.

This Company is the only one devoted exclusively to the manufacture of naphthas; was the first to recognize the need of your industry for specially prepared products, and accordingly set up a large research laboratory at Chicago, Ill., for this purpose.

They have continued this research since its inception and not alone have they stressed the very important feature of UNIFORMITY, but have developed products particularly suited for the various branches of the industry, and also instructed the customer on their proper use in order to obtain the desired results. Surely their slogan "tailor-made naphthas" is a justly merited one.

CROWN CAN CO.

PHILADELPHIA, PA.

This Company operates the most recently constructed plant for the manufacture of steel pails and tin cans, and accordingly have the most modern equipment. This plant is an unusually large one and their quality and service well merits any buyer's consideration.

LOCTO CO.

ST. PAUL, MINN.

This Company is a comparatively new one in the phenolic resin field.

They have developed a series of products, which we feel have special advantageous features, and will find a place in formulas that will merit your serious consideration.

Letter

Published This Once by

D. H. LITTER CO., Inc.

500 FIFTH AVENUE, NEW YORK, N. Y.

BOSTON PHILADELPHIA

FALK & CO.

CARNEGIE, PA.

This Company produces Fish Oil and Soya Bean Oil in the alkali, refined, kettled and blown grades, as well as many other specialties; also Alkyd Resins, specially prepared for the industry.

They are recognized as being the first in having developed new products of fish oil, soya bean oil and allied materials, a long step forward from the ordinary variety of these products, which originally found but little use in the industry.

This development work has been of considerable benefit to the industry and the work is still progressing, with the thought that further improvement can and will be made along the general idea of lower cost, better products and easier handling.

NUODEX PRODUCTS, Inc.

ELIZABETH, N. J.

Here again this Company was the first to recognize the need of having naphthenate driers in an easily available form, i.e., liquid instead of the gummy, solid form as heretofore sold. Their publicity with the slogan "Three little bottles that built the plant" is indicative of their first promotional sales work.

They have maintained not only a very high degree of uniformity but have steadily improved the quality of their original products, plus many new ones developed from time to time and offered to the industry with full technical information as to their use. The latest of these developments is the product NUADE, one that very dramatically illustrates its advantages, the savings in dollars and cents to the paint grinder.

PURE CALCIUM PRODUCTS DIVISION

DIAMOND ALKALI CO., PAINESVILLE, OHIO

As with our other principals this Company started with the ordinary grade of whiting and after many years of research and development elevated whiting (calcium carbonate) to a class where these products are recognized with the same respectability as hiding pigments, insofar as their value in formulation in the paint industry is concerned. Suspenso and Swansdown grades were the first products; later came Surfex; and they have research in progress today on further improvements, so that you can look forward in the not very distant future to two or more new members to this calcium carbonate family.

Each of our principals maintains an adequately staffed laboratory for research towards the development of products better suited to the industry than heretofore supplied, and for the purpose of lowering the cost in the finished paint and varnish formulae also to improve, wherever possible, the method of formulating not only with their own products but with collateral products making up those formulae. Practically everyone of our principals is known for his initiative and generally being the first in recognizing the need for new and improved products for your industry.

In addition, we felt the need of a local laboratory to supplement this work with technical as well as practical formulation and development of technique for our customers, which would be easily accessible and readily available. Therefore sometime ago we established a laboratory at Long Island City, staffed with four men who make a specialty of being intimately acquainted with our customers' desires, ideas and needs. This rounds out a well-merited individual service, which is having a continued, favorable acceptance.

D. H. LITTER

Carbon Gas Blacks

KOSMOVAR
Specially prepared for the highest grade lacquers

KOSMOLAK
For high grade lacquers and enamels

KOSMOS F4. DIXIE PERFECTO
For lacquers and enamels

DIXIE SPECIAL NO. 102
For use in intermediate grades

KOSMOS BB
For industrial purposes

KOSMOS 3 X B
DIXIE 5, KOSMOS 2
Superior commercial grades

UNITED CARBON COMPANY
Charleston, W. Virginia

Other Reports

Secretary George B. Heckel reported that the membership of the federation had been increased during the year by seventy-four and totaled 1,600, of which 1,385 were active members; 54, associates; and 161, subscribing.

He reported also on the publication of an index of technical papers presented before local clubs from 1919 to 1937. A word on the cooperation of the federation and the National Paint, Varnish and Lacquer Association was also included in Mr. Heckel's report.

Treasurer C. W. Clark reported receipts of $5,344 during the year, disbursements of $5,115, and a balance on hand of $6.513.92 in the general fund.

The expenditures from the educational fund had amounted to $1,813.76, and that account totaled $24,089.95.

By-Laws Revised

President Stauderman referred in his annual address to the steps taken to have the federation given a Federal tax-exempt status as a scientific organization. To give these steps formal recognition, the by-laws committee through Kenneth J. Howe, chairman, recommended that section (g) of article V be amended to provide that the treasurer should set aside the net proceeds of each annual paint show in an irrevocable educational fund, and that article II be amended to include among the objects of the federation the establishment of a separate educational fund for the specific purpose of encouraging research for the paint, varnish, and lacquer industry. These revisions were approved by the convention.

The by-laws were also revised to change the name of the cost accounting committee to cost committee.

Reporting as chairman of the scholarship committee, Mr. Howe outlined the purposes of the continuing research under a scholarship at the University of Michigan and of the new research scholarships at the University of Louisville and Case School of Applied Science. These are under the direction of the respective local clubs.

He reported also that the advisory committee had authorized the awarding of $300 in prizes for paint and related papers by graduate and undergraduate students in recognized universities and colleges. Six papers had been received from graduate students, and prizes were awarded to (first) J. E. Rose and H. E. Bennett, of the University of Louisville, for "Loss of Drying Power of Black Paints Caused by Aging"; (second), Henry A. Ball, of Lehigh University, for "Analysis of Paint Decomposition Due to Weathering"; honorable mention was given Lawrence Gussman, of Columbia University, for "Acid Number, Viscosity and Livering of Boiled Linseed Oil."

Eight papers were submitted by undergraduates. The prize was awarded to Henry Dan Piper, of Princeton University, for "Influence of Variations of Barium Sulphate Extender Particle Size on Hiding Power of Titanium Dioxide Paints." Second ranking was given to "Effect of Temperature and Humidity on Paint Films," by Victor Gordon, of Case School of Applied Science.

The committee, Mr. Howe said, has under consideration the establishment of other scholarships in the 1940-41 college year. It has provided for such work since its inception a total of $5,332. The convention approved an appropriation of $3,500 to be spent by the scholarship committee with the approval of the advisory committee.

Secretary Heckel proposed recognition of the loss sustained in the death of A. C. Cochrane, of Canadian Industries, Ltd., and the convention stood in silent respect of the memory of the deceased.

Hugh Aiken, president of the Southern States Federation Associates, invited other production men to attend its annual meeting February 22 to 24 in Atlanta. He said that his ten-State organization hoped to complete a paper for presentation to the federation at the 1940 meeting.

Research Prerequisites

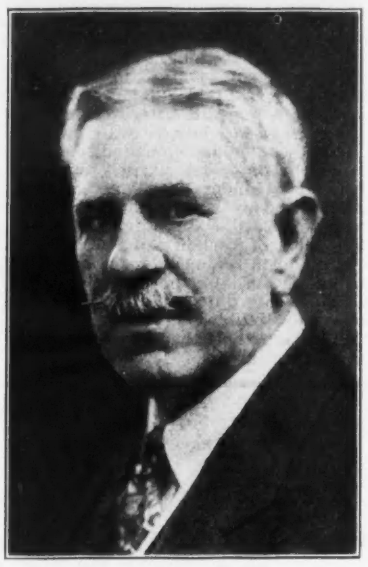
Some of the things that must be considered in planning and especially in evaluating research were explained by Dr. D. B. Keyes, of the University of Illinois, whose text was "The Basic Economic Factors Underlying Success in Research and Development for Industry." A fair proportion of research funds never produce industrial successes, he said, because the projects are not subjected to proper appraisal at the proper time.

Pointing out the impossibility of foreseeing the eventual industrial value of a discovery, Dr. Keyes said that its possibilities must be appraised in respect of capital investment, rate of profit, length of profitable life, and other places or products. Warning of the errors possible through indeterminable factors, he stressed the necessity of thoroughly considering patents, raw materials, process operations and equipment, and the product and by-product. Changing conditions may variously affect process operations and equipment, he said, and he regarded these as most important to technical men. Clashes with basic patents were emphasized as another matter to be avoided, and he mentioned the generosity that had attended the application of basic patents so as not to handicap the development of the lacquer industry.

Cost and availability of raw materials must be studied together, Dr. Keyes advised, and he cited an instance in which the ability of a competitor to use a much cheaper material caused a substantial loss to the developer of a product. Evaluation of product and by-product is most difficult, he said, and no preplotted curve of sales volume and prices proves accurate in practice. Advantages and disadvantages of the size of competition were explained in respect of developments. The possibility of a better new product within a short time was noted, and he regarded a new product as more desirable than a new process.

Research developments can be too good, Dr. Keyes said; by offering a large number of new ideas or products at one time they can overtax the resources of an enterprise, especially if it is a small one. In this connection the need for careful appraisal is great. University teachers, he said, believe that young men should have knowledge of all things necessary to an overall appraisal of research and development, but they can only give their students a start in that direction. The success of a research director, he concluded, depends on his ability to make accurate appraisals at the proper time—and to recognize the proper time.

In addition to prizes for papers, the federation awarded the Toronto golf trophy to the New England Paint and Varnish Production Club; and the *National Paint Bulletin* prize for the best report by a club secretary of a meeting of his club was awarded to J. E. Creager, of the Chicago Paint and Varnish Production Club.



George B. Heckel
Re-elected F.P.V.P.C. Secretary

Questions and Answers

Discussions of questions relating to materials, processes, and equipment constituted the business of the closing session. These had been arranged by the plant managers' committee, and were directed by Robert J. Smith, chairman of the committee.

More than twenty questions were discussed. These had been selected and collated from about 150 that had been submitted to the committee. For submitting the best list, both in number and in topical interest, H. J. L. Cotton, of the Cleveland Paint and Varnish Production Club, was rewarded by the plant managers' committee with a nifty, modern briefcase.

The questions on the program were allotted to various members for primary discussion and were then opened for comment by the gathering of production men and representatives of exhibitors in the paint show. Summaries of the several comments follow.

Grinding Practice

Where there is any difference, it had been found that better dispersion was effected with less floating by grinding a pigment combination together at one time, than by grinding the components separately and mixing the pastes.

Grinding Economy

Whether to grind enamel colors repeatedly or to finish by centrifuging after two or three grinds was held to be a question of individual factors. If a few grinds did not give satisfactory results, more grinds would not improve them—this was the opinion of some. Because centrifuging changes colors, it was suggested that an unsatisfactory grind should be started all over again; six grinds not being good practice. In this connection, selection of method was stressed, mass grinding, it was said, does not give best results in least time. Three grinds then centrifuging and then tinting to match was suggested as a good method. The matter of cost was raised, and again the changes resulting from long grinding were mentioned as an offsetting factor. As a strictly economical question it must be decided on a cost basis; with expensive colors it was said to be cheaper to regrind because of losses in centrifuging; with cheaper colors centrifuging would be satisfactory. The wisdom of changing equipment if repeated grinding was necessary was suggested.

Phthalocyanin Blues

Differing views were expressed with respect to the stability of phthalocyanin blues. One observer had found but slight change in trade sales paints over two years. Another said that there was a deepening of the hue within three days, and no change later. This was offset by undertinting the paint. A third said that all types continued to change over two months, the green-toned blue being the worst through assuming a dirty red tone. Light tints were said to change more than darker ones. It was thought that there was a shift toward the red tone, which deepened the tint. The analytical consideration of the matter suggested that the paint formula was the influential factor; that phenolic vehicles caused more change than alkyd or spar vehicles.

Tints on Titanium

It was said that all tinted titanium whites fade in chalking, and that the new semi-nonchalking titanium white defers this result but is not specially adapted to tinted outside paints although valuable in exterior enamels. The addition of antimony white was said to improve this pigment in respect of the fading of tints through chalking. The other new, titanium white, which is more nonchalking, was said to retard the fading more and to obviate unsatisfactory results. It was said to be of value in tinted house paints and to have a final fading result about the same as that with litho-

pone, lead and zinc, or antimony white.

Aluminum Primer

The nature of the surface treated was said to be the main factor in respect of the satisfactoriness of 100-percent aluminum primer on metals. Generally it was recommended in ordinary work that red lead or zinc yellow be used as the primer under aluminum, sometimes in combination with the latter in the priming coat. On structural steel, three coats of aluminum had been found satisfactory —so had three coats of other primers. Aluminum primer was said to have good penetrability in the proper vehicle but to lack protective value, and not to be an outstanding primer by any test. On rusty surfaces, aluminum was said not to give satisfaction, steel tanks after being brushed free from scale required zinc yellow. On polished steel two coats of aluminum with no primer was said to give excellent results. Any primer for metal must be highly pigmented to prevent corrosion by decomposition of the vehicle.

Sealing Concrete Floors

A good sealing coat for concrete floors before painting was said to be a chinawood oil-synthetic resin varnish cut 20 percent with turpentine or mineral spirits. Chemical pretreatment with silicate of soda or sulphate of zinc was noted. A satisfactory method was to wash with a solution of sulphate of zinc (3 to 4 pounds to gallon of water); allow to dry; brush off the crystals; and seal with a 20-gallon to 30-gallon oil length varnish of 100-percent phenolic synthetic resin and chinawood oil. A similar cumar-chinawood oil varnish was also said to be a good sealer.

Pigment Volume

The best pigment volume of house paints is not the same for all pigments or all formulas, it was said. While a percentage of 28 to 30 is desirable as a general rule, it is not a positive factor. Satisfactory variations may be reached through the use of naphthenates for better dispersion. A pigment of coarse particle size requires less binder than one of fine particles. This fact was considered worthy of further investigation. The application of certain volume characteristics to a pigment may be misleading because of the variations resulting from differences in particle size, and trouble may result from using more vehicle than is required for the surface area of larger particles. The optimum pigment volume must be worked out for individual formulations.

House Paint Testing

House paints, being designed for use chiefly on wood, should be tested on wood in brush-outs, so as to duplicate conditions of use. A suggested method employed white pine panels, 30 by 8 inches, with one coat of exterior primer striped with eggshell black. These panels could be reused for first testings, it was said, if recoated with primer and striped. White cardboard with black lines had been found satisfactory as a base for test coats.

Deodorizing Paints

To avoid objectionable odors in paint it was advised as a first step that oils, gums, and thinners be selected for minimum initial and residual malodors. This selection should be made by comparisons in the medium in which they were to be used, as a mixture may give an entirely different odor which is far less pleasant. The use of ammonia as a deodorizer when paint is being applied and that of bread crumbs as an absorbent were noted, as was the recently suggested use of an ozone generator. Some deodorants were found to eliminate the primary odor, but not to avoid residual odors after twenty-four hours or so. The consensus was that a two-component deodorizer or reodorizer is needed; one component to mask the odor of the vehicle; the other to stay in the film and cover the residual odor. Volatile odorizers of various sorts are obtainable and compounded preparations, containing also vanillin or coumarin or other crystalline aromatic, marketed by several aromatics concerns, were said to be quite satisfactory. Odors made by Fritzsche Brothers and Magnus, Mabee & Reynard were specifically mentioned as satisfactory.

Fluorescent Matching

Fluorescent lamps have some advantages in color matching, it was said, because of their efficiency at the ends of the spectrum. They also give a constant quality of light, and work close to a good, strong, natural north light. Their blues, reds, and greens were said to be relatively pure, and in matching chrome oranges the red will show that tone which can be checked under the green, which muddies it.

Drying and Adhesion

Top drying lowers the adhesion of a coating film to a metal surface, it was said in discussion of the effects of various methods. Through drying gives better adhesion. Through drying plus polymerization has been satisfactory in commercial roll-coating methods. Polymerization was said to be better than oxidation, the latter leaving a tendency to chip off. Polymerization during the baking was said to be better than at an earlier stage; and baking in the absence of oxygen was said to be an improvement. A drier that polymerizes during the baking was said to be needed.

Naphthenate Driers

When driers have been cooked into oils or varnishes the use of naphthenates has some advantage in regard to flow, it was said. If the function of the drier is to dry the oil, naphthenates, said another commenter, are indicated. If the drier must be cooked in and is required also to control cooking conditions, the advantages of naphthenates, he said, were dubious. There was some opinion that naphthenates lose stability in cooking.

Wetting Agents

It was generally agreed that many wetting agents are satisfactory in certain applications, but all seem to be specific in this respect in relation to pigments and vehicles. None is universally applicable with satisfaction. The method of grinding is a factor in the functioning of a wetting agent, roller mills and pebble mills giving different results.

Water Resistance

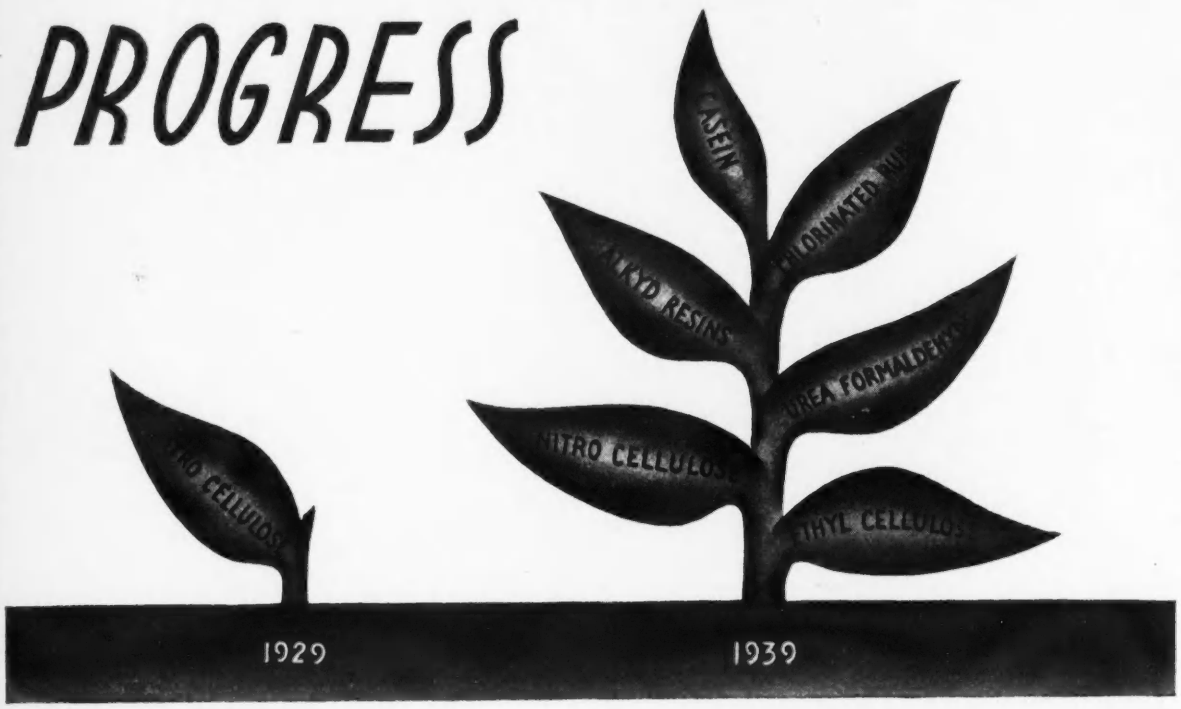
It was said that the water resistance of a chinawood oil vehicle could be equalled with dehydrated castor oil by using an ester gum instead of a phenolic resin or by shortening the oil length with a phenolic. Perilla oil, properly bodied, was also suggested, and it was said that time could be saved by bodying the oil before adding the resins.

Resin Comparisons

Various views were expressed on whether viscosity or melting point was the better basis of comparisons of synthetic resins. It was argued that much depends on what the comparisons are for. The opinion was expressed that any basis was satisfactory if selected properly and found applicable to all resins involved; the last point often was dubious. Melting point was believed to be generally more satisfactory as an identifying property, but this varies with different types of resins, and its interpretation depends on the use that is to be made of the resin. Neither viscosity nor melting point can be used to predetermine performance, it was declared; color and specific gravity are of equal importance in getting the kind of resin wanted on successive orders.

Polymerization Test

For readily measuring the polymerization of an oil-resin mixture during cooking, or the viscosity of an oil, it was said that the electric torsion apparatus was unsatisfactory because of variables. The length-of-string method, whether a hot or a cold glass strip was used, was not considered accurate. The acetone precipitation test, which gives an insoluble jell, is useful only to detect when the limit has been passed—usual-



R.B.H. pioneered the introduction of pre-dispersed pigments in nitrocellulose in 1929 by a unique method of processing.

In spite of generally unfavorable business conditions during the early thirties, R.B.H. made slow, but gratifyingly steady, progress. Lacquer manufacturers were recognizing the value of R.B.H. nitrocellulose dispersions, and the principle of "supplementing, and not supplanting" their own grinding operations.

The outstanding results obtained with R.B.H. nitrocellulose dispersions created a demand for the same R.B.H. technique in other binders. This demand resulted in the development of dispersions in ethyl cellulose, chlorinated rubber, casein, synthetic resins, vinylites and others.

Such expansion outgrew the name of the R.B.H. Lacquer Base Company, and this year one was selected which more accurately described its activities. R.B.H. Dispersions, Inc., is the name of an organization which is devoting all its efforts to pigment dispersion problems.

R.B.H DISPERSIONS, INC.

BOUND BROOK, N. J.

ly too late—or local overheating. Friction shaft apparatus changes sensitively under the influence of heat and requires too many calculations. An ordinary pipette had been found satisfactory in laboratory practice and a larger one was suggested for stack testing; correlation of the time of flow was said to be readily learned.

Flexibility Testing

Cold cracking is not a satisfactory substitute for kauri reduction as a test for flexibility. A good spar varnish cannot practically be cold cracked. Time is an element—four hours for kauri reduction; two weeks for cold cracking. It was suggested that in getting a kauri reduction value the lowering effect of driers be taken into consideration.

Stearate Jells

Various factors, it was pointed out, affect the preparation of aluminum stearate jells for flat wall paints. An imporatnt one is whether the jell can be added to the paint as soon as made. In such cases dissolving the stearate in mineral spirits with the aid of steam heat is satisfactory; but mineral spirit jells do not retain their viscosity or elasticity as well as do those made by grinding the stearate in a medium oil varnish or by dissolving it in heated linseed or soybean oil and cooling slowly. Oil jells are not so good for flat paints. Selection of the stearate was mentioned as important. Use of kerosene as the solvent was advised. Aging the jell three or four months was said to give a slush which was fully satisfactory in stability.

Handling Liquid Rosin

Shipping rosin in tankcars was said to be not satisfactory to manufacturers of resins because of loss of grade colors. It was suggested that the best method was to melt the rosin over the steam pipes; strain; and process immediately or place in hot storage. Rosin handled in this way, it was said, showed no considerable darkening.

Handling Viscous Oils

Heavy-bodied oils, resin melts, and the like, are best handled in the plant, if they must be heated, by pumping or by vacuum pull. To remove such materials from drums, it was suggested that the containers be heated in steam chambers, and the contents drawn out by vacuum through flexible hose. A steam chamber described was constructed by placing pipe coils on the floor and laying steel sheets on these to hold the drums. The filled containers were kept in this chamber for about twenty-four hours before the material was to be used, and a constant temperature of about 160°F. was maintained. It was said to be impossible to get the last few pounds of melted resin out of a drum otherwise than by use of a solvent.

Metals for Closed Kettles

For the construction of closed kettles for making synthetic resins and processing oils, it was said that aluminum and stainless steel alone would assure resin color; that the first cost of aluminum is lower, but stainless steel wears better. For certain batches monel and nickel were reported to be satisfactory, although the cooking of fossil resin in monel gave the surface a "copper plating." Clad metals were said to be unsatisfactory, because the layers separated and the kettles were ruined at the higher temperatures. Aluminum was said not to be satisfactory for oil bodying, because the heat softened and distorted the fittings. It was pointed out that stainless steel, in the absence of air, was likely to lose its passiveness, and it was well to heat it with 1 percent nitric acid to render it inactive.

Straining Paints

To keep a strainer working on a heavy-bodied paint up to the speed of a fast filling machine a sort of composite suggestion was worked out. The trouble in question was getting rid of skins and the like in large batches from continuously used tanks. The first part of the suggestion was that a catch basin of about 50 gallons' capacity be located between the screen and the filler to provide a head while the screen was cleaned. This was not believed satisfactory for heavy paints and the addition was suggested of self-cleaning stainers, hand or motor operated, one with a coarse screen ahead of the catch basin, another with a finer screen at the outlet of the basin to the filler. This it was felt would obviate the necessity of stopping long enough to take a strainer apart and clean it.

War and Markets

In respect of the effect of European war conditions on the market for paint and varnish materials it was believed that the development of direct importations from the Far East and other sources would preclude any repetition of the 1914-18 situation. Some price advances must be expected; some are already in evidence—mercurials, copper, French ocher, Persian gulf oxide; steel containers may become more costly. If buying is restricted to actual needs, much trouble and cost will be avoided.

Technical Papers

There were fewer technical papers at this year's meeting; and, because of the longer convention period, more time was available for discussions. The technical program was handled by Robert E. Prince, of James B. Day & Co. Fifteen papers by constituent clubs were presented, covering a wide range of experimentation, mostly in fundamental research more or less closely approaching practical aspects of production problems, on which there were some excellent contributions. An abstract of the federation's scholarship research was also given in the technical program.

The papers selected for the *American Paint Journal* prizes, presented at the banquet by Everett W. Boughton, were: —First in practical group, "Study of Natural Resins in Combination with Synthetic Resins for Floor Varnishes," by the New England club; second practical, "Measurement of Adhesion of Dried Coatings," by the New York club; first in research group, "Study of the Effect of Pigment Concentration on the Hiding Power of White Pigments," by the Baltimore club; second, research, divided between "Effect of Resins on Kauri Reduction," by the Louisville club, and "Proposed Pictorial Standards for Designating Degrees of Failure of Organic Films," by the Philadelphia club.

The winners of the *Drugs, Oils & Paints* prizes for meritorious presentation of papers were:—First, R. J. Gnaedinger, of the Chicago club; second, L. W. Shuger, of the Baltimore club; third, W. F. Kuster, of the New England club. Honorable mention was given the Philadelphia club for its dramatized presentation of its proposed pictorial standards.

Summaries of the technical papers are given below:—

Natural and Synthetic Resins in Varnishes

New England Club

To get relevant data on the popular belief that old-time floor varnishes were better than the modern types, the New England Paint and Varnish Production Club prepared and tested a variety of such coatings containing natural and synthetic resins in a number of combinations of Congo No. 11, kauri pale No. 1, pontianak bold scraped, pale East India bold, black East India bold scraped, Batu scraped, "Beckopol" 1400, "Kopol" 500, 501, and 502; ester gum 6-8, "Amberol F-7," "ST-137*X," and "BR-3360."

The various varnishes were tested for color, resistance to hot water, cold water, alkali, acetic acid, and 50 percent alcohol; gasproofness, skinning, drying, kauri reduction, hardness, adhe-

COBALT DRIERS

Cobalt Acetate, 23% Co
Cobalt Carbonate, 49.5% Co
Cobalt Chloride, 24.5% Co
Cobalt Hydrate, 62% Co
Cobalt Linoleate Solid, 8.5% Co
Cobalt Linoleate Liquid, 3%, 4.26%, 6% Co
Cobalt Litho Drier, 3%, 4.26% Co
Cobalt Nitrate, 20.3% Co
Cobalt Paste Drier—
No. 18, 1.8% Co
No. 36, 3.2% Co
No. 42, 5.6% Co
No. 56, 4.6% Co
Cobalt Lead Paste Drier—
No. 49, 2.23% Co and 11.25% Pb
Cobalt Resinate Fused, 2%, 3%, 3.5%, 5.5%
Cobalt Resinate Precipitated, 7.2% Co
Cobalt Sulphate, 20.75% Co
Cobalt Oxide, 71% Co

LEAD DRIERS

Lead Acetate (all grades)
Lead Linoleate—
Precipitated, 26.15% Pb
Fused, 26.5% Pb
Liquid, 13% Pb
Lead Paste Drier—
No. 45, 18% Pb
No. 49A, 11.25% Pb and 2.23% Mn
Lead Resinate—
Fused, 10%, 16%, 19% Pb
Precipitated, 23% Pb

MANGANESE DRIERS

Manganese Acetate, 22.4% Mn
Manganese Borate, 18% Mn
Manganese Carbonate, 41% Mn
Manganese Chloride, 27% Mn
Manganese Hydrate, 61% Mn
Manganese Linoleate—
Solid, 8.2% Mn
Liquid, 4.35% Mn
Manganese Paste Drier—
No. 44, 5.6% Mn
Manganese Resinate—
Fused, 3.5% Mn
Precipitated, 7.2% Mn
Manganese Sulphate, 33% Mn
Manganese Oxide Black (all grindings), 58% Mn

UVERSOL DRIERS (Naphthenate Type)

Uversol Cobalt Solid, 11.5%
Uversol Cobalt Liquid, 6%
Uversol Cobalt Lead Solid No. 330, 3% Co and 30% Pb
Uversol Cobalt Liquid No. 202, 2% Co and 20% Pb
Uversol Cobalt Zinc Liquid No. 110, 1% Co and 10% Zn
Uversol Lead Solid, 40%
Uversol Lead Liquid, 32%, 24%, 16%
Uversol Lead Manganese Solid No. 303, 30% Pb and 3% Mn
Uversol Lead Manganese Liquid No. 220, 20% Pb and 2% Mn
Uversol Manganese Solid, 10.5%
Uversol Manganese Liquid, 6%
Uversol Zinc Solid, 16%
Uversol Zinc Liquid, 10%

MISCELLANEOUS

Stearates of Aluminum, Calcium, Lead, Magnesium, Zinc
Palmitates of Aluminum and Zinc
Eg-Glo (Zinc Tungate)
Calcium Linoleate Pulp
Zinc Linoleate Solid
Zinc Resinate Extra Pale Fused Precipitated

PIGMENTS

Chrome Yellows
Chrome Greens
Cadmium Lithopones
Cadmium Sulphides
Cobalt Blues
Cobalt Violet

HARSHAW DRIERS AND PIGMENTS

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sion, abrasion, body, nonvolatile, gloss, and print. From the tests the experimenters drew the following conclusions:—

The Congo No. 11 varnishes had good adhesion, but low wear or abrasion resistance.

The fused Congo ("Kopol 501") varnishes were duplicates of the Congo No. 11 series with the advantage of yielding lighter color, less dirt to contend with, and no gums running loss to take into consideration.

The esterfield Congo ("Kopol 500") varnishes show higher kauri reductions, better resistance to gas-checking, and better initial as well as final wear than the other Congo varnishes. The results with esterified Congo in combination with ester gum or modified phenolic in particular look very interesting.

The kauri and black East India varnishes had good adhesion, but early abrasion failure, similar to Congo No. 11 varnishes.

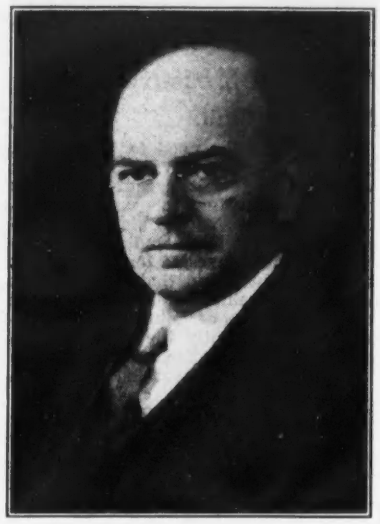
The pontianak varnishes gave the highest initial wear with very good final wear resistance. The adhesion of the Pontianak varnishes, however, was only fair. The adhesion was improved by modification with phenolic resins excepting the heat-reactive type.

Pale East India varnishes have good adhesion except when modified with phenolic resins. The initial wear was only fair, but the final wear was the best of the natural resins.

The Batu varnishes had good adhesion until the phenolic percentage was increased. The initial wear was fair and final wear good. The color of this series was very dark.

The synthetic varnishes had much better color, better water, reagent, and gas-checking resistance. Additions of the synthetic resins to the natural resins generally improved the water, reagent, and gas-checking resistance of the naturals. The adhesion of the synthetic varnishes was poor as compared to the natural resin varnishes. Additions of phenolic resins to the natural resins tended to lower the adhesion as well as wear resistance of the naturals unless the phenolic content was kept low. Pontianak and Congo were exceptions to this with the 100 percent soluble type phenolic. The heat-reactive phenolic seemed to lower the adhesion of the natural resins the most and also lowered reactive phenolic was used. Restating the above, the natural resins, particularly the wear resistance; bad chipping occurred in nearly all cases where the heat-Pontianak, pale East India, Batu, and esterified Congo improved the adhesion and wear resistance of the synthetic resins.

The alkali resistance of pontianak, Congo and kauri was poor, showing early failure and tended to pull the synthetic resins down to their level in this respect. Esterified Congo had fair alkali resistance while Batu, Black East India and pale East India had fairly good resistance. The tables do not bring out these points as well as they should. Observation of the films during the alkali test, however,



C. W. Clark
Re-elected F.P.V.P.C. Treasurer

showed that pontianak, Congo, and kauri varnishes were attacked early and were completely dissolved in three hours or more, while the other natural resin varnishes were not affected as quickly.

Varnishes can be made without first running the natural resins pale East India and black East India. Batu proved to be too troublesome. These cooks are apt to be tricky to handle and care must be exercised to otbain a good solution. It was necessary to run the pale East India to 600° F. in the presence of the oil to obtain a varnish that would not seed out. The unrun black East India cooks were run to a top temperature of 560° F. and seeded out on ageing. A higher top temperature of 600° F. may have overcome this as was indicated by the pale East India cook. There is no advantage in this method since it amounts to running the resin in the presence of the oil. Our opinion is that the time-honored custom of

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running the resin first, then adding the oils, is preferable.

The work of this paper indicates that better wearing floor varnishes can be made by utilizing the good adhesion and wearing qualities of the natural resins, pale East India, Batu, Pontianak, and the esterified Congo. Modification of the above-mentioned natural resins with low percentages of phenolic resin, excepting heat-reactive phenolic, is desirable from the viewpoint of increasing the water, alkali, and gas-checking resistance.

Adhesion Measurement

New York Club

Recognizing the need for a standard of adhesion of dried protective films which would permit direct comparisons of adhesion values of various coatings, the New York Paint and Varnish Production Club studied the methods generally suggested for determining adhesion, but found that these do not measure specified adhesion because other forces are of influence in the results. Consequently the club's technical committee experimented with a "tensile" method involving elongation

Walter F. Kuster
Re-elected to F.P.V.P.C. Executive Committee

of the base on which the coating had been applied. This proved to be merely qualitative in results and to be affected by flexibility.

Further investigation discovered a means of calculating numerical values for the results of tensile testing by a direct method of pulling the coating from the base by means of a cemented strip. On this the committee reported:—

1. The committee has developed a new method for measuring specific adhesion which it has named the "Direct Tensile Method."

2. The direct tensile method is found to be generally applicable to a wide range of coatings and surfaces to which they are applied.

3. The method is simple and yields reproducible quantitative results. The values for specific adhesion are given in pounds per square-inch.

4. Contrary to the views frequently held, good flexibility of a coating is not necessarily an index of good adhension. The converse of this also appears true.

5. Pigments have a specific effect on adhesion. For example, flexible coatings when pigmented show a material increase in adhesion; films of medium flexibility show no appreciable change in adhesion; while brittle coatings show a decrease in adhesion when pigmented.

6. One limitation governing the method is that the cohesive force of the coating must be equal to or greater than the adhesion of the coating. Since practically all dried paint, varnish, and lacquer films have a greater cohesive than adhesive strength, this method may be used.

7. Although it is known from practical experience that coatings on metal bases, such as copper, zinc, chromium, etc., will ultimately fail in adhesion with aging, all of the coatings tested showed substantial initial adhesions. Since the initial adhesion values are sufficiently high for the use of this method, it should be possible to follow the change in adhesion with aging and further study is recommended.

8. Single and multiple coats of average thickness, of 1 to 1.5 mils, show no appreciable difference in adhesion by this method. Low values may result with heavy coats when the film is insufficiently dried.

9. The committee has also designed a "Quantitative Knifeblade" method and feels this method is an improvement over the qualitative knifeblade or fingernail test, since it permits a quantitative measure of knife pressure in removing the film.

10. The committee recommends that further work be done to correlate the "knife" method with the "tensile" method, and that further work be done also on the tensile method using other bases and simplification in cementing technique to make it more applicable to all laboratories.

Pigment Concentration And Hiding Power

Baltimore Club

In an analysis of the differing views of commenters on the relation of pigment concentration to the hiding power of white pigments, the Baltimore Paint and Varnish Production Club made a number of tests comprising seven pigments—L.O. lithopone, H.O. lithopone, H.H. lithopone, titanium-barium pigment, titanium-calcium pigment, titanated lithopone, and zinc sulphide—in concentrations of 40, 50, 60, and 70 percent P/NV and brushing out with various weights of pigment in the range of 2.1 grams to 21.4 grams.

The outstanding point of the results was the indication that the increase in hiding power reported to follow decrease in pigment concentration has a minimum point at which the relation begins to be reversed. So, the club's investigators reported as follows:—

We make no claim that the numerical data presented in this paper will hold for the same pigments in all other types of vehicles or under conditions different from those under which this data was obtained. We do feel, however, that the evidence of these data warrant the following general conclusion:—

1. It is futile to attempt to assign absolute hiding values to pigments either from experimental data collected under one set of conditions or values derived from optical or empirical calculations.

2. The hiding power of a given weight of pigment is different at different P/NV ratios.

3. There is a P/NV ratio where a given weight of pigment has a minimum hiding power. As the pigment concentration is increased or decreased from this point there is an accompanying increase in hiding power for the given weight of pigment.

4. The relative hiding power of various pigments varies depending not only upon the pigment-nonvolatile ratio, but also upon the thickness at which the paint is to be applied.

Effects of Resins On Flexibility

Louisville Club

A study of factors influencing the different flexibilities of similar varnishes made with different resins was made by the kauri reduction method by the Louisville Paint and Varnish Production Club. Varnishes made with limed rosin, ester gum, modified phenolic synthetic resins, and straight phenolics, in chinawood-linseed oil (90:10) were used in the tests. The results showed a great divergence of kauri reduction values between the 100 percent phenolics and the nonphenolics, ester gum and limed rosin. Even at 50-gallon lengths, where the effect of the oil would be expected to be considerable, the rosin varnish had a much lower reduction value than the phenolics. So, the investigators concluded:—

The kauri reduction values for a given length increase in the same order as the durability of the resins. However, it would be too broad a generalization to make that durability is a function of kauri reduction. Although a 25-gallon 100-percent phenolic varnish has approximately the same kauri reduction as a 33-gallon modified phenolic or a 50-gallon ester gum varnish, it is hardly expected that they will be equal in durability.

Comparing the theoretical values with the actual, it appears that the actual kauri reduction values for all resins except the 100 percent phenolic resin are lower than the theoretical. The theoretical values for the 100 percent phenolic varnishes are lower than the actual, showing that this resin may have a plasticizing action on the oil. As the phenolic content is decreased, the theoretical values become higher than the actual values. The differences between these become greater for the long oil lengths as the quality of the resin becomes poorer. It follows that all the resins other than the 100 percent phenolic resin have an embrittling action on the oil. How far this embrittlement extends cannot be determined from this data. But even at 50 gallons there is still a marked effect, especially on the limed rosin varnish. Although such results may not justify claims that there is chemical combination between oil and resin, there is without doubt an effect greater than might be expected from a simple physical mixture. The colloidal structure of the varnish and the resulting film may be affected, or the resin may have some action on the bodying of the oil.

The latter effect cannot be discounted altogether since the results indicate that oils of greater viscosity have lower kauri reductions. Further work on this phase

and on varnishes containing more oil than 50 gallons may give more definite indications to exactly what extent each component affects the kauri reduction value of the varnish. A study of varnishes made by cooking the components together compared with varnishes made by mixing the components (the oil bodied separately) will probably reveal interesting information. Data should also be obtained on other oils—alone and in combinations—as well as on a greater variety of resins, especially the different grades of reactive and nonreactive 100 percent phenolic resins.

Pictorial Standards For Film Failures

Philadelphia Club

Photographic reproductions of failures of paint films numerically designated to indicate degrees of failure were offered by the Philadelphia Paint and Varnish Production Club as practicable and necessary standard for indicating failure on the federation's sheet for records of tests. Pictures prepared with this purpose represented what the club considered to be degree ranges of from 2 to 8 in failures in checking cracking, flaking, erosion, chalking, mildew collection, and rusting. For indicating the last failure, the colored standards of the Swedish Royal Institute were recommended, and the possibility was expressed that the American Society for Testing Materials might later prepare such standards.

The club recommended adoption of the photographic standards by the federation, and that the national organization provide for the furnishing of sets of these standards.

Further work is to be done by the club on discoloration, blistering, gloss, dirt collection, and general appearance.

The presentation of this paper was attended by dramatizations by members of the club of the need for readily available and comparably interpretable records of all factors of exposure tests.

Dehydrated Castor Oil In Varnishes

Cincinnati - Dayton - Indianapolis-Columbus Club

Experiments in the bodying of dehydrated castor oil with other oils were carried out by the Cincinnati-Dayton-Indianapolis-Columbus Paint and Varnish Production Club in further search for data on the suitability of dehydrated castor oil in varnish-making. The eventual objective was a picture of the possibilities of this oil in the replacing of chinawood oil wholly or in part.

Because earlier experiments had shown that dehydrated castor oil—at least the incompletely converted oils then available—was not alone a direct substitute for chinawood oil, the club stepped aside from the work with the dehydrated oil alone to try it out in combination with other oils. There was the thought that much could thus be learned of its behavior in processing, and it was desired to learn whether intermolecular linkage could be effected in oil mixtures and what would be the result in practical applicability.

The following oil mixtures were bodied:—

Oil 1:—Equal volumes of dehydrated castor oil ("Synthetic A") and soybean oil ("Superior A"), bodied at 575° F.

Oil 2:—Equal volumes of dehydrated castor oil ("Isoline SV") and alkali-refined sardine oil, bodied at 540° F.

Oil 3:—Equal volumes of the oils used in No. 2, bodied separately, cooled over night, and blended.

Oil 4:—Equal volumes of dehydrated castor oil ("Synthetic A") and chinawood oil, bodied at 540° F.

Oil 5:—Equal volumes of alkali refined perilla oil and dehydrated castor oil ("Synthenol"), bodied at 585° F.

Oil 6:—Equal volumes of alkali-refined linseed oil and dehydrated castor oil ("Collanol Z"), bodied at 585° F.

Ester gum and phenolic resin varnishes were made with these compounded oils and with the various oils separately. These were tested for viscosity, specific gravity, color, setting, drying, resistance to water and to alkali, and for hardness. The results were presented in tables and charts, with these conclusions:—

The greatest change in the constants of the mixture of oils takes place in the first half-hour after the mixture has reached the bodying temperature. In bodying the mixture of dehydrated castor oil with sardine oil, the acid number and molecular weight gradually increase, showing that there is a gradual interlinking of the molecules; whereas where the oils were bodied separately and then cold blended, the characteristics of the individual oils show up.

The well known fact of direct relation of viscosity to molecular weight is clearly shown; that is, an oil which bodies very fast in viscosity also has a fast increase in molecular weight, which illustrates polymerization. Perilla oil exerts a greater force on the polymerization of the dehydrated castor oil than linseed.

The viscosity drop on reduction with naphtha is directly related to the degree of polymerization. Although there are very slight differences between the various oils, it can be seen that tung oils and dehydrated castor oil drop the least in viscosity, followed by perilla, linseed, and fish oil in the order named.

J. F. McMenamin
Director of 1939 Paint Show

Data on the bodying rates of the oils at various temperatures show that the new type of dehydrated castor oils body very much faster than the old types, but not as fast as a 50 percent mixture with tung oil.

None of the dehydrated castor oils we worked with was a substitute for tung oil either directly or partially; but finished varnishes could be made with dehydrated castor oil by changing the cooking procedure and sometimes the gums, which were equal in all respects to medium length tung oil varnishes.

Drying Action

Montreal Club

Construction of a theory explanatory of the drying phenomenon of paints has interested the Montreal Paint and Varnish Production Club for several years. It had prepared two earlier papers in presentation of its studies and findings, and had reached at least a tentative conclusion in that dispersion of the drier was an influential factor with respect to drying time. On this basis it had suggested regrinding as a means of overcoming loss of drying time on standing.

This year's study picked up the "sweating" theory and carried experiments through periods of three, six, twelve, and thirty days before regrinding and reducing. The conclusion on this was:—

The longer the pastes are allowed to sweat before regrinding and reduction the shorter is the initial drying time of these paints. However, it is to be noted that this benefit is found only as far as the initial drying time is concerned, for all paints, more or less, appear to arrive at a uniform drying time irrespective of the sweating period allowed. Looking at the results of the settling tests we see very clearly the relation of the degree of loss of drying time to the rate of settling. This is noticeable particularly in the case of the paints which were allowed a long sweating period. Here the paints which show a fast initial drying time, and a quick increase of drying time on storage, settle the most rapidly.

It would appear therefore that this method of attempting to overcome the loss of drying time in paints on storage is of even less benefit than the sweating system used last year. The answer probably lies in the fact that last year the pigment particles had aggregated before addition of the drier. In this year's work the aggregates were broken up before the addition of the drier, allowing less drier metal to be absorbed by the pigment, thus contributing to better results being obtained.

For sake of uniformity one drier, cobalt naphthaenate stabilized with triethyl or tributyl citrate, was used; although some comparative tests were made with a cobalt salt of octyloxyacetic acid. Some of the facts noted were that differences in pigmentation content are of little effect on drying changes; flushed colors slowed down

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drying time, thus bearing out the earlier conclusions on the effects of moisture; wetting agents have little effect; precoating the pigment particles with a heavy oil reduced drying time on standing up to three months; turpentine did not hasten the drying time in comparison with mineral spirits.

Drying Power Loss

Kansas City Club

In an endeavor to "crack the age-old problem of loss of drying power," the Kansas City Paint and Varnish Production Club set out to find reliable methods of evaluating the adsorption and precipitation of lead, manganese, and cobalt driers. On what it discovered it based the hope that, in time, the cause of adsorption and precipitation of metallic soaps might be discovered with respect to the influence of various pigments and other things. That, in turn, it was hinted, might offer a key to the maintenance of drying power.

Work was carried out on some brown house paints, and their soluble metallic contents were calculated, by methods presented in the paper, at the end of twenty-four hours and of twelve months. The data were tabulated, but the club said that, if any reader could find therein "any support for any theory, living or dead, as to the mechanism of drying of an oil," the presence of such was "entirely accidental."

The club intends to carry on along the following lines:—

1. To find the saturation point for the adsorption by the various pigments. This may be done by bringing the metal content up to the original value at the end of each twenty-four-hour period until the adsorption is nil.

2. Test the metallic salts of the various fatty acids, such as resinates, etc.

3. Attempt to retain driers by the selective adsorption of other metallic soaps.

4. Study the variation of adsorption by the various types of iron oxides. There has been some variation noted.

Hydrocarbon Solvencies

Philadelphia Club

As a result of further work in its search for a method of evaluating hydrocarbon thinners, the Philadelphia Paint and Varnish Production Club presented a paper comparing its previously reported fuming sulphuric acid method and a silica gel percolation method. Work had been done on prepared aromatic compounds variously composed of toluene xylene, pseudocumene, paracymene, methylcyclohexane, dimethylcyclohexane, trimethylcyclohexane, and narrow cuts of alkylates with an estimated paraffinicity of 98 percent, as matches for four low-solvency thinners and two high-solvency thinners, which also were examined.

The silica gel method has an analytical equation of 1.4960x + RI of raffinate (1-x) = RI of thinner, and the naphthenic and paraffinic values of the thinner are calculated from the RI (refractive index) in comparison with a nomograph.

Concerning the silica gel method, the club said:—

The fuming sulphuric acid method, already described, is belived best applied to high-solvency thinners. Silica gel has a limited capacity to absorb aromatics, and has not been found satisfactory by one of the cooperating laboratories in an attempt to remove aromatics from thinners wherein the content exceeds 35 percent.

Since the purpose of aromatic extraction is merely to obtain a few drops of aromatic-free material, the Bureau of Standards apparatus has been modified. Percolation method used in the present work consists of pouring 10 cc. of thinner onto a 6-inch long column of silica gel contained in a 12-mm. inside diameter vertical glass tube with a ¾-inch plug of glass wool at the bottom. Volume of gel is 20 cc. It should be thoroughly tapped into place to prevent channeling. After about five minutes the thinner will have nearly disappeared into the gel. Just before disappearance, an additional 5 cc. are poured into the tube. Then 2 cc. of percolate are collected in a test tube, which is tightly stoppered. Minimum time of contact should be five minutes. The silica gel must be kept dry.

A comparison of the cooperative analyses of low-solvency naphthas B, D, and J made last year by the acid method with those made by the silica gel method will reveal slight differences in aromatic content, but marked differences in the relative naphthenic and paraffinic ratios. Further, where average deviations were as high as 3.6 percent (of the whole solvent) for the acid method, there are none as high as 1 percent for the present gel method, the grand average deviation being less than 0.5 percent for all the components of the four low solvency naphthas and their synthetic matches analyzed.

Hydrocarbon Solvencies

Los Angeles Club

In an endeavor to construct a method of evaluating the solvency power of hydrocarbon thinners on a practical basis, the Los Angeles Paint and Varnish Production Club sought something more satisfactory than kauri-butanol value, mixed anilin point, or dilution ratio. As the properties which it is chiefly desired to control by the use of solvents are reduction of viscosity of the oil-resin solution, stability of the solution, and freedom from precipitation of components, the club experimented with viscosity reduction as a standard of solvency evaluation.

Various data of the experimentation were reported ,and the following conclusions were presented:—

To the best of our knowledge, this is the first attempt ever reported for the evaluation of solvent power in terms directly applicable to commercial procedure of varnish manufacture. As is usually the case when a new approach to a problems is attempted, further detailed evidence is needed before an accurate procedure can be specifically described. However, we feel that the results of our experiments present substantial evidence that:—

1. Solvent strength of hydrocarbon thinners can be reliably measured by determining the effect of solvents upon a composition of a type similar to that which it is intended that the solvent is to dissolve in actual practice.

2. Solvent strength of any given solvents or combinations thereof is a function of an area bounded by a graph of viscosity versus nonvolatile by volume, relative to a selected base line.

Kenneth J. Howe
Chairman on Scholarship and By-Laws

3. Viscosity characteristics of semi-colloidal solutions (or dispersions) are a function of relative *volumes* of various components, *not* of relative weights.

4. Viscosity measurements of varnish oils and resin base solutions are a direct logarithmic function of the volume of nonvoliatile within the viscosity ranges at which these materials are customarily used and for purposes of solvent strength calculations should be plotted on semi-logarithm paper.

5. A practical method of evaluating solvent strength in terms of only two variables appears attainable with the only equipment required being (a) a set of Gardner viscosity tubes, (b) semilogarithmic graph paper, 3 cycle, (c) a straight-edge ruler, and (d) a lead pencil.

It is to be noted that a computation of solvency equivalents of the commercial thinner corresponds remarkably well with chemical analysis of the material when the method here suggested is employed. The calculation described, for this particular solvent, would seem to indicate the possibility that the pure naphthenic solvents, when present in a predominantly paraffinic thinner, may behave with a solvent character comparable to the viscosity reduction ability displayed by pure aromatic solvents.

A complete correlation between the viscosity reducing character of solvents and "anilin point" does not seem to be indicated, at least insofar as the solvents are used as varnish thinners.

Varnish Losses

Chicago Club

Interested in getting a detailed determination of losses in weight and shrinkage in volume in varnishes during heat processing, the Chicago Paint and Varnish Production Club experimented with ten resins and two oils. Its conclusions were reported as follows:—

Resin losses appear to vary widely from 39 percent in the case of dry meta para phenolic or 25 percent of that resin in mineral oil, down to less than 1 percent in the case of ester gum in its short cook with chinawood oil.

Oil losses range from a maximum of 9 percent in the case of long high-temperature cooks on linseed oil, down to 1 percent or less with most of the wood oil-linseed cooks.

Losses in varnish bases range from less than 1 percent to 13.5 percent.

Resulting oil lengths in the varnish bases, starting with a 25.8 gallon oil length, reach a high of 33 gallons where the resin loss is highest.

Shrinkage in addition to volume losses accompanying losses in weight was not indicated by any appreciable change in specific gravity in respect of any of the resins.

Linseed oil showed a maximum increase in specific gravity from 0.9429 on the unheated oil to 0.9780, equivalent to a volume shrinkage of slightly more than 4.5 percent.

Chinawood-linseed oil showed a maximum increase in specific gravity from 0.9306 on the unheated oil to 0.9528 before gellation, equivalent to a volume shrinkage of 2.3 percent.

Varnish shrinkage resulting from the separate shrinkage of resin and of oil may therefore be considered to amount to a maximum of 3 percent in these cooks.

Shrinkage resulting from alleged condensation of resin with oil was sought with considerable interest. Here, as might be expected, discrepancies due to experimental error make absolute conclusions rather hazardous. However, the maximum apparent shrinkage was 1.5 percent, the average was well under 1 percent, and nearly one-fourth of the cooks showed apparent swelling in volume.

It seems very doubtful, therefore, if any volume change occurs other than that due to losses in weight and to increase in specific gravity of the polymerized oil.

Due allowances were made for probable losses of resin and of oil in calculating these specific gravities.

If it is proper to assume that true chemical reactions are accompanied by volume changes, must we not then question the oil-resin condensation hypotheses, pending proof that such condensation actually takes place?

With resins in mineral spirits, a fairly consistent difference between weighted and calculated specific gravities averaged about 0.5 to 0.75 percent volume shrinkage. This small margin, even though consistent, is too close to probable experimental error, however, to be accepted as a proved fact.

There is less consistent indication of volume shrinkage when oils are thinned with mineral spirits or xylol, than with resins. It appears a safe conclusion, therefore, that no such shrinkage occurs.

For varnish bases the maximum apparent shrinkage is 0.5 percent. The average is about 0.2 percent or exactly what would result when a mixture of one-third resin and two-thirds oil is thinned.

In general it is safe to say that any shrinkage in volume occurring when an oleoresinous base is thinned is too slight to be of practical interest.

Most of the resins became less soluble and gave more viscous and darker solutions as cooking time and temperature were increased. Notable exceptions, giving lowered viscosity with heating, were maleic ester, one modified phenolic resin, and cumarone resin.

Linseed oil viscosities in solution increased more rapidly as insolubility was approached. The chinawood-linseed mixture appears to jump sharply from a thin viscosity to insolubility. Color changes on the oils do not cover a very wide range.

Tung Oil Supply, Demand: 1935-39

	Pounds			
	Domestic Production.	Imports.	Consumption.	Stocks at end of period.
1935				
First quarter	(1)	26,540,802	29,163,332	21,426,530
Second quarter	(1)	26,942,192	32,558,040	12,898,230
Third quarter	(1)	37,226,911	27,204,749	19,398,116
Fourth quarter	(1)	29,348,912	25,360,561	19,008,265
1936				
First quarter	(1)	42,123,341	25,673,885	35,157,687
Second quarter	(1)	41,193,757	28,107,020	38,528,378
Third quarter	(1)	31,449,658	26,532,273	44,797,677
Fourth quarter	(1)	20,063,240	27,561,409	28,980,550
1937				
First quarter	(1)	44,752,725	32,216,881	35,185,243
Second quarter	(1)	51,244,290	36,048,705	43,652,715
Third quarter	(1)	60,187,395	29,919,813	59,401,008
Fourth quarter	(1)	18,700,393	22,192,746	48,655,853
1938				
First quarter	(1)	28,046,191	20,694,183	51,616,315
Second quarter	(1)	22,417,443	22,054,012	53,439,271
Third quarter	(1)	30,826,526	21,584,282	62,141,954
Fourth quarter	(1)	26,165,514	23,082,607	61,188,828
1939				
First quarter	1,085,150	17,770,441	25,717,024	53,712,099
Second quarter	(1)	21,697,649	26,139,321	41,010,968
Third quarter	.....	16,879,490	20,091,747	33,752,577

(1) Not separately classified. Domestic tung oil production has been estimated as 1,945,000 pounds during the crop year 1936-37, 2,789,000 pounds in 1938-39, and 5,250,000 pounds in 1939-40.

Humidity, Temperature

Cleveland Club

A preliminary study of the effects of humidity and temperature on protective coatings was reported by the Cleveland Paint and Varnish Production Club. This covered exposures in drying apparatus of glass, steel, and wood panels, coated with (1) "Pol-mer-ik" linseed oil, (2) phenolic house paint primer vehicle, (3) long-oil alkyd exterior vehicle, (4) porch and deck vehicle, (5) first-grade house paint, (6) phenolic house paint primer, (7) long-oil alkyd white enamel, (8) porch and deck enamel, (9) ester gum spar varnish, (10) modified phenolic spar varnish, (11) 100 percent phenolic spar varnish. These were treated with naphthenate driers and were exposed at from 50° F. to 95° F. and 95 percent to 30 percent relative humidity.

The following conclusions were reported:—

Experience with the equipment described indicates that it will be capable of providing a set of accurately controlled temperatures and humidities which should cover most conditions encountered in ordinary painting practice.

Two preliminary runs were made in the apparatus, whence difficulty was experienced from dust drawn into the machine through insufficient filtering of the circulated air. This has been remedied, and the new cabinet also includes adequate air filters to obviate this defect in future runs.

Since a primary purpose of the investigation is to compare sets of data on materials tested under all of the set of weather conditions chosen, data on just one or two of these are of little value alone.

The lack of truly comprehensive data on humidity and temperature effects makes difficult the choice of representative materials from such a large field of available materals. Criticisms and suggestions are invited, both as to materials and as to test methods, for it is felt that because of the importance and complexity of the investigation, all possible factors should be considered before the program proceeds too far.

Other Papers

The Pittsburgh Paint and Varnish Production Club presented a paper, "The Painting of Brick Surfaces," outlining the preparation of cumar-chinawood oil, abalyn-phenolic, and alkyd emulsion primers and a lead-zinc-titanium-asbestine-linseed oil finishing coat which were applied on various brick surfaces last June, but had not yet been evaluated.

"An Evaluation of Surface-Active Agents in Pigment Grinding" was the title of a paper by the Detroit Paint and Varnish Production Club reporting grinding times in eighty-three testing and control experiments with a variety of wetting agents in oleoresinous and alkyd vehicles. The club is continuing its studies, particularly with reference to dispersion, and expects to collect some interesting data by a photomicrographic method.

The Golden Gate Paint and Varnish Production Club presented its first report of progress in the study of primers for nonferrous metals. This covered the treatment of aluminum and its alloys and magnesium alloys with various modifications of the navy aeronautical specification P27b and some twenty-five resinous and metallic primers of various types.

Oils, Fats, and Waxes

Refined Cottonseed Oil Futures Lower with Lard—Offerings of Chinawood Oil Continue Light—Lard and Neatsfoot Oils Reduced—Tallow Remains Steady—General Trade Fair

Business in miscellaneous oil, fats and greases continued on a conservative scale last week, many consumers and dealers still being disinclined to purchase in advance of current needs. This policy appeared to be traceable in some measure to the existing uncertainty concerning political affairs at home and abroad. A downward trend in cottonseed oil and lard futures also had a tendency to make buyers of other products inclined to hold off. A fair volume of orders for moderate lots of various technical and edible products was reported in some quarters, however, the movement of such quantities apparently being no smaller than in the previous week. The price trend was downward.

Offerings of many imported and domestic oils and fats were light and the prevailing tone late in the week appeared to be steady. The downward trend of lard futures was regarded by some as due mainly to technical speculative conditions. Receipts of hogs at some points in the West were smaller than recently. Stocks of lard in Chicago decreased about 5,325,000 pounds during Otober.

Price Changes

Prices were changed during the past week as follows:—

Advanced

Carnauba wax, refined, 2c. per lb.
Japan wax, ½c. per lb.

Reduced

Coconut oil, crude, ⅛c. per lb.
Corn oil, crude, ¼c. per lb.
Lard, 25c. to 30c. per 100 lbs.
Lard oil, ¼c. to ½c. per lb.
Neatsfoot oil, ¼c. to 1c. per lb.
Stearin, oleo, ¼c. per lb.
Tallow oil, ½c. per lb.

Comparative Values

Index numbers compiled from twenty-three typical oils, fats and greases on the basis of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
106.4	**106.6**	**108.0**	**101.1**

Market news that may have developed after this report was sent to press will be found on page 4.

Chinawood Oil

The local market for chinawood oil was quiet in the absence of any increase in offerings, but the tone continued steady and general conditions remained about as noted in the previous week. Quotations on tankcars ranged from 24c. to 27c. per pound, according to seller. Further arrivals, details of which are given in a separate article in this issue, were reported but offerings in the open market were still limited to comparatively small quantities. According to official statistics covering the third quarter of the current year, importations during the period were 16,879,490 pounds; factory and warehouse consumption 20,091,747 pounds; stocks at close of September 33,752,577 pounds. These figures compare with the corresponding quarter last year as follows:—Importations 30,826,526 pounds; consumption 21,755,128 pounds; stocks, 62,033,591 pounds.

SAN FRANCISCO, Nov. 1.—Business in chinawood was lacking, sellers dropping the quotation fractionally to 26c. per pound, in tankcars, f.o.b. Pacific Coast ports. Syndicate oil, if available at all, was mentioned at around 23c.

Vegetable Oils

Coconut. — The local market for crude oil remained in a rather easy position, though 3⅞c. per pound for tankcars appeared to be a minimum open quotation. Business was slow throughout the week, consumers being disposed to hold off for further developments in the situation abroad as well as in domestic markets for other commodities. Refined oil was quiet and steady.

SAN FRANCISCO, Nov. 1.—Sales of coconut oil during the week were very light with sellers naming 3⅝c. per pound, c.i.f. Pacific Coast ports and/or mills, with indications that bids of 3½c. would immediately bring about business. Buyers generally were not interested. Crushers here were in no hurry to enter into contracts for supplies of copra and as a result trading was very light. Quoted today on the basis of 2.25c. to 2.30c. per pound, c.i.f. Pacific Coast ports.

Corn.—The market for crude oil had a somewhat easier tone, quotations being shaded ⅛c. There was a fair inquiry. Offerings were apparently rather light throughout the week. Refined oil met with a fair demand.

Cottonseed.—A steady tone prevailed in the market for edible oil, previous quotations being repeated by refiners. Business lacked snap, but the call for moderate quantities was fair, the movement into consuming channels being reported as satisfactory for this period.

Oiticica.—The market here retained a steady tone. There were reports of a good inquiry. Offerings were light, some quarters being bare of spot supplies. Importations for consumption during the quarter ended with September, according to official statistics, were 7,133,859 pounds.

Olive.—The inquiry for foots was reported as fairly active, although buying interest was apparently limited to moderate lots to fill the current or nearby requirements of consumers.

Peanut.—A steady tone prevailed in crude oil, offerings being reported as light in all sections with quotations mainly nominal. Importations of peanut oil during the September quarter were 317,214 pounds.

Perilla.—The market had a fairly steady tone, although the inquiry continued to be reported as rather slow. Quotations were held at former levels. Importations during the September quarter were 14,519,321 pounds.

Soybean.—Consumption appeared to be holding up well, but new business was reported as quiet. The market for spot oil was steady.

Markets at Other Centers

Chicago, Nov. 3.—Trade in the general vegetable oil market remains quiet. The price structure shows little change.

COCONUT.—Coast basis, November-forward, 3⅝c. to 3¾c. per pound. Refined, edible oil, 9¼c. to 9½c. per pound, drums, car lots; and 9¾c. to 10c., drums, less than car lots.

CORN.—Crude, low acid, 6¼c. to 6⅜c. per pound, partly nominal. Refined, edible oil, 9¼c. to 9½c. per pound, barrels, car lots; and 9½c. to 9¾c., barrels, less than car lots.

PEANUT.—Crude, mills, November-forward, 7c. to 7⅛c. per pound.

SOYBEAN.—Crude, mills, 4¾c. to 5c. per pound, November-forward.

The market for soybeans on the Chicago Board of Trade showed some irregularity, but in the main the tone was firmer. Trading in futures was fairly active. The cash demand improved. Offerings were rather light much of the time. Following is a price record, per bushel, for the week:—

	High.	Low.	Closing Nov. 3.	Closing Oct. 27.
Cash, No. 2..	$0.96	$0.90½	$0.96	$0.88⅝
December	.97¼	.91¾	.97¼	.87⅞
May	.99	.91	.99	.90¼

San Francisco, Nov. 1.—Trading in the general list of vegetable oils became so light last week that many of the items were on a nominal plane today, with quotations in some cases varying downwards slightly.

BABASSU.—Babassu nut oil is quoted on the basis of 6½c. per pound in tankcars, f.o.b. mills, Pacific Coast.

OITICICA.—Raw, liquid oiticica oil is quoted on the basis of 19½c. to 20½c. per pound in drums and/or tankcars, f.o.b. Pacific Coast ports for spot shipment or future delivery from Brazil.

COTTONSEED.—Cottonseel oil, domestic bleachable, is quoted at 7c. per pound in tankcars.

PERILLA.—Perilla oil is quoted on the basis of 13c. per pound in tankcars, f.o.b. Pacific Coast ports for prompt or deferred shipment, with moderate interest.

RAPESEED. — Refined and denatured rapeseed oil is quoted on the basis of 8c. per pound in tankcars, f.o.b. Pacific Coast for forward shipment, with spot stocks light.

TEASEED.—Supplies of teaseed oil were evidently dried up last week, suppliers being unable to make offers. Quoted purely nominally on the basis of 12½c. per pound in drums, f.o.b. Pacific Coast ports.

Current prices on animal, vegetable, and fish oils (under Oil), fats, and greases (under Grease) are given in the alphabetical list of prices beginning on page 7

Linseed Oil

Flaxseed prices were irregular, with trading in futures quieter in domestic markets. Linseed oil, cake and meal steady.

Flaxseed.—DULUTH, Nov. 3.—The flax demand in this market continues steady, and daily receipts are seasonably light, as the greater part of the 1939 crop has been marketed.

The trading basis has remained steady, reflecting purchases for Eastern shipment before navigation ceases for the year. The cash basis is 10 cents over Minneapolis December price for flax on track and 9 cents over for flax to arrive.

Supplies of seed here show a decrease of 145,000 bushels, and stocks in store are reported at 1,093,000 bushels.

The week's closing price range was as follows:—

	Cash.	Dec.
Saturday	$1.79	$1.69½
Monday	1.80	1.70
Tuesday	1.80	1.70
Wednesday	1.80½	1.70
Thursday	1.80	1.70
Friday	1.83	1.75

Crop movement in bushels follows:—

	Receipts 1939.	Receipts 1938.	Shipments 1939.	Shipments 1938.
This week..	133,671	18,583	190,190	132,424
Since Aug. 1....	3,404,215	1,480,694	2,539,574	868,203

MINNEAPOLIS, Nov. 3.—A straggling cash flax movement this past week was very readily absorbed by the crushers at firm and unchanged premiums. Diversion point demand was good and northern seed moved mostly to the head of the lakes for shipment east. Local demand was good but most of the crushers have a good supply in reserve and are not competing aggressively for current arrivals. Mills are still running close to 100 percent of capacity and are using their reserves steadily. Elevator stocks decreased 35,000 bushels in four days compared with 55,000 decrease a year ago.

Shipping advices from the country are small in volume and line elevator managers report light farm selling. With the Argentine trade pact in the background for the moment there is less tendency to dispose of farm stocks of seed. Most of the northwestern production has moved to

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market and there is little chance of any real marketing from now on.

Considerable of the present movement to terminals is being sold to outside crushers. Some is sold on track for immediate shipment and the out movement of the week accounted for a fairly large portion of the in movement.

Trade in futures light and mostly routine. Crushers are hedging their track purchases and commission houses are buying back hedges against their cash sales.

The week's closing price range was as follows:—

	Cash.	Dec.	May.
Saturday	$1.77	$1.69	$1.67
Monday	1.78	1.70	1.67½
Tuesday	1.78	1.70	1.68
Wednesday	1.78½	1.70½	1.68½
Thursday	1.78	1.70	1.68½
Friday	1.81	1.73	1.73

Crop movement in bushels follows:—

	Receipts— 1939.	1938.	Shipments— 1939.	1938.
This week..	95,200	56,880	29,400	13,680
Since Sept. 1	3,068,800	1,566,510	1,018,800	173,810

WINNIPEG, Nov. 3.—Trading in flaxseed futures was more active. Cash demand was light. The week's closing price range was as follows:—

	Cash.	Dec.	May.
Saturday	$1.59½	$1.57¾	$1.54
Monday	1.59½	1.60½	1.58¼
Tuesday	1.60	1.60	1.58½
Wednesday	1.59⅛	1.59¼	1.57⅝
Thursday	1.59	1.59½	1.57½
Friday	1.60½	1.61	1.60

BUENOS AIRES, Nov. 3. — Opening prices per bushel on November contracts were:—

	Last week.	Last year.
Saturday	$1.22¾	$1.03¼
Monday	1.22¼	1.03¼
Tuesday	1.22⅝	*...
Wednesday	*...	1.02⅛
Thursday	1.23½	1.02⅝
Friday	1.26⅛	1.02⅝

* Holiday.

Exports

To—	Bushels— Last week.	Previous week.	Last year.
United States	142,000	138,000	213,000
United Kingdom	.....	.....	.....
Continent	413,000	248,000	461,000
Orders	59,000	.....	315,000
Others	47,000	.....	31,000
Totals	661,000	386,000	1,020,000

Since January 1

To—	Bushels— This year.	Last year.
United States	12,315,000	11,118,000
United Kingdom	2,220,000	1,134,000
Continent	21,756,000	21,335,000
Orders	8,137,000	8,586,000
Others	2,567,000	1,760,000
Totals	46,995,000	43,933,000

Visible Supply

	Bushels.
Last week	1,969,000
Previous week	2,165,000
Last year	2,362,000

Linseed Oil.—The tone of the market here appeared to be steady in the main last week, quotations generally being held at previous levels. There were reports of a somewhat better inquiry from domestic buyers. The local movement into consuming channels on contracts apparently held up rather well for this period of the year, although a falling off in withdrawals was reported at some outside points.

Receipts of flaxseed at terminal points in the Northwest were lighter and the offerings were well absorbed by crushers and cash houses at firm premiums over futures. The country movement diminished and was expected by some to remain light during the remainder of the season.

Crop accounts from Argentina were less favorable, excessive rains being reported in some sections and unseasonably low temperatures with frost at other points. With the acreage large and above average, however, the indications continued to point to liberal supplies for export, some estimates being increased to around 70,000,000 bushels for the coming season.

Receipts of flaxseed at New York last week were 42,911 bushels. India shipped 48,000 bushels to Europe during the week.

MINNEAPOLIS, Nov. 3.—Not much action in the linseed oil market at present. Large buyers are on the fence because of the neutrality arguments at Washington and also because of the proposed trade pact with Argentina. Most buyers, large and small, have their nearby requirements well booked and are in a position to ruminate until well after the first of the coming year.

As yet shipping instructions are good and the outflow of oil is liberal so crushers are unable to accumulate reserves of importance.

Quotations on carload lots, f.o.b. Minneapolis, tankcars, 9.5c. per pound; cooperage, car lots, 10.1c. per pound; warehouse lots, 10.5c. per pound.

Shipments of oil in pounds were as follows:—

	1939.	1938.
This week	2,640,000	1,560,155
Since Sept. 1	20,660,000	15,393,041

SAN FRANCISCO, Nov. 1.—A two-point reduction in the linseed oil card rate took effect in the San Francisco market during the week, coincidental with a period of quietness in trading activity. Few, if any contracts, were made and only a smattering of interest was present for spot drums. Deliveries, however, are holding well. Buyers, watching the Argentine market, are proceeding slowly. Quoted:—Tankcars, 9c. per pound; drum lots, ex-mill, 9.6c.; drum lots, ex-warehouse, 10c.

CHICAGO, Nov. 3.—Most buying of linseed oil is in restricted lots. Ruling prices are:—Tankcar, 9.5c. per pound; car lots, 10.1c.; less than car lots, 10.5c.

Cake and Meal.—A steady tone prevailed in the local market, quotations being maintained at former levels. Domestic demand for meal was more active and some increase was also noted in the export inquiry for cake.

MINNEAPOLIS, Nov. 3.—Lack of shipping instructions from holders of contracts resulted in crushers seeking some meal orders in aggressive mood and competition for moderate outlet resulted in a sharp dip in prices last week. Around $30 there was a sudden revival of business for near and deferred shipment and prices in three days regained $2 of the previous loss. Strength developed very suddenly over the weekend and was partly due to snowfall over a large part of the northwest.

Shipping instructions lagged for a spell but now are good. In spite of their anxiety crushers did not have much meal to sell and when they placed their accumulating floor stocks they ceased pressing.

Quotations on carload lots, f.o.b. Minneapolis, 100-pound sacks, $32 to $32.50 per ton.

Shipments of meal in pounds were as follows:—

	1939.	1938.
This week	4,920,000	2,505,813
Since Sept. 1	46,520,000	24,264,523

CHICAGO, Nov. 3.—The linseed meal market is quiet. Ruling prices are:—Round lots, $33 to $34 per ton, largely nominal; car lots, $34 to $35; less than car lots, $36 to $37.

Cottonseed Oil

Refined oil futures were quiet in the local market with the price trend downward. Southern markets for cottonseed products quiet.

Cottonseed Oil.—Speculative operations in the local market for refined cottonseed oil futures were on a rather small scale much of the time last week, local and other traders being inclined in not a few cases to hold aloof for further developments in political affairs at home and abroad, as well as in the markets for other commodities. On the whole there was more disposition to sell than there was to buy, however, and the trend of prices was mainly downward, although changes were not very wide as selling was not of an aggressive character, while support was received at times in the shape of covering of shorts and buying by trade interests.

Lard futures displayed weakness in the West, where speculative sentiment seemed rather more bearish for the time being at least despite some falling off in the movement of hogs to market. Arrivals of hogs in the principal western centers for four days of the week aggregated 244,300 head, against 253,810 in the previous week and 241,600 head last year. The weight of the hogs received in Chicago during the week ended October 28 averaged 222 pounds for barrows and gilts, against 223 pounds in the previous week. Stocks of lard in Chicago decreased 5,324,458 pounds during October, the loss being smaller than some in the cottonseed oil trade had expected. In October last year there was a decrease of 13,417,261 pounds. Stocks there at the close of last month amounted to 36,992,195 pounds, against 50,201,296 pounds last year.

Southern markets for crude oil were quiet and the tone in some cases was easier, quotations being shaded ⅛c. Crude coconut oil remained easy in the absence of any improvement in demand. A fairly active inquiry was reported for cash refined cottonseed oil. The export movement of lard continued light.

Two government reports are expected in the near future, one from the Department of Agriculture estimating the cotton crop, and the other the monthly cottonseed report from the Census Bureau. A report published by a local business newspaper last week put the indicated yield of cotton as of November 1 at 11,413,000 bales, against an estimate of 11,290,000 bales a month earlier. Estimates of the consumption of cottonseed oil during October in some cases were lower than in the previous month, when 442,127 barrels were consumed.

Trading in bleachable prime Summer yellow cottonseed oil futures on the New York Produce Exchange from October 28 to November 3, inclusive, comprised 291 contracts, a total of 17,460,000 pounds. Following is a price record for the week:—

	Cents per pound in tanks— High.	Low.	Close.
January	6.85	6.60	6.72@6.75
March	7.05	6.70	6.87@6.90
May	7.12	6.79	6.96@6.99
December	6.80	6.50	6.67@6.69

Crude, Southeast, .05⅝@.05¾c.

Chicago, Nov. 3.—Buyers of cottonseed oil seem to be interested in the market as much as at any time in recent weeks. Good, off-Summer, yellow fig oil is 7⅜c. per pound. Refined, edible oil is 9¼c. to 9½c., barrels, car lots; and 9¾c. to 10¼c., barrels, less than car lots.

Cake and Meal.—Quiet conditions were reported in Southern markets for spot material, buyers being inclined to hold off for further developments. With offerings light, the tone was generally steady.

Markets at Other Centers

Atlanta, Nov. 1.—Trading in cottonseed products is reported very light throughout the South. Sellers are indifferent and waiting action in Washington on the embargo apparently in the hope that prices may advance. Prime crude oil is offered at 6.75c. in the Southeast, and 8 percent meal at $26.50 per ton.

Memphis, Nov. 3.—Trading in crude cottonseed oil remained quiet during the past week. Today bids were in the market at 5⅝c. Holders of the few scattered tanks available are asking 5¾c. Meal steady with mills apparently sold well ahead. Quoted at $26.50 per ton for 41 percent, prompt shipment from Memphis. Bulk Valley cake sold at $24 per ton for November-February shipment. Hulls $5.50 to $6 per ton at mill points. Gathering of cotton is nearing completion. C'ose observers here are predicting the outturn for the whole belt will not be over 11,500,000 bales.

Closing cottonseed meal quotations on the Memphis exchange were as follows:—

	October 26.	November 2.
December	$25.00@25.25	$26.00@26.25
January	25.00@25.25	25.60@25.90
March	25.00@25.35	25.55@25.65
May	—@—	25.45@25.60

Fatty Acids

Castor Oil.—The market for this fatty acid had a stronger tone, advanced prices being quoted in some quarters owing to the high cost of basic material. There was a steady movement into local and other consuming channels.

Coconut Oil.—A somewhat better request was noted for this fatty acid, though purchasing was generally along conservative lines in the absence of anything stimulating in the market for basic material. Quotations were steady.

Cottonseed Oil.—The inquiry continued to be reported as good and the movement into consuming channels in some fields was apparently larger than in recent preceding weeks. The market retained a steady tone.

Lauric Acid.—The market was reported as quieter so far as new business was concerned though consumption was said to be holding up well. The market remained in a steady position.

Red Oil.—Quotations were generally stationary and the tone of the market appeared to be steady in the absence of any change in the position of basic material. A steady movement was reported to local and other consumers.

Stearic Acid.—Prices were generally maintained at former levels with the tone apparently steady. The market for raw material was also steady. The movement of stearic acid to local and other consumers was apparently on a rather liberal scale. Importations during September were 136,636 pounds.

Markets at Other Centers

Chicago, Nov. 3.—Values in the fatty acid market seem to be fairly well main-

Current prices on animal, vegetable, and fish oils (under Oil), fats, and greases (under Grease) are given in the alphabetical list of prices beginning on page 7

CHINA WOOD OIL SUBSTITUTIONS

Often market conditions make it imperative that a large proportion of tung oil in many formulations be replaced by the softer oils. To accomplish this without too seriously affecting viscosity, drying time, hardness and water resistance requires synthetic resins with particular properties.

The following suggestions are offered as a broad approach to this difficult problem:

AROCHEM 65 . . . . . With LINSEED oil

AROCHEM 115, AROCHEM 520, AROFENE 700 . . . . With PERILLA and DEHYDRATED CASTOR oils

AROCHEM 120 . . . . . With OITICICA and DEHYDRATED CASTOR oils

Further details are available

THE COMPLETE RESIN LINE

ESTER GUM—*all types* • **"AROFENE"**—*pure phenolics*
"AROCHEM"—*modified types* • **"AROPLAZ"**—*alkyds*
NATURAL RESINS—*all standard grades*

STROOCK & WITTENBERG CORPORATION
NEW YORK, N. Y.

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MEMPHIS, TENNESSEE

PRODUCTS OF COTTONSEED, PEANUTS and SOY BEANS

Members—Memphis Merchants Exchange (Futures in Cottonseed Meal)
New York Produce Exchange (Futures in Cottonseed Oil)

District Representatives
JAMES LOVATELLI & CO., 2 Broadway, New York City
Codes: Yopps, Robinsons, Bentleys, A.B.C. 5th Edition, Heinrich

tained, with business reported holding up fairly well.

FATTY ACIDS.—Corn oil, double distilled, 9c. to 9¼c. per pound, tankcar; 9½c. to 9¾c., barrels, car lots; 10c. to 10¼c., barrels, less than car lots; coconut oil, acidulated, 10c. to 10¼c., tankcar, mostly nominal; 10½c. to 10¾c., barrels, car lots; 11c. to 11¼c., barrels, less than car lots; cottonseed oil, double distilled, 8¼c. to 8½c., tankcar; 8¾c. to 9c., barrels, car lots; 9¼c. to 9½c., barrels, less than car lots; settled cottonseed soap stock, 60-62 percent basis, 3¼c. to 3½c.; boiled down soap stock, 65 percent basis, 4¼c. to 4½c.; cottonseed foots, 50 percent basis, 1½c. to 2c.

STEARIC ACID.—Distilled, single press, 12c. to 13c. per pound; double press, 12½c. to 13½c.; triple press, 15¼c. to 16¼c.

Fish Oils

Menhaden.—No broadening of trade was reported in the local market for refined oil, consumers still generally being disinclined to purchase ahead to any important extent. There was a fair inquiry for moderate lots, however, and the movement into consuming channels on contracts previously placed was also on a fair scale. The market retained a steady tone, quotations being maintained at former levels.

Sardine.—Refined oil selling schedules were unchanged and the tone of the market appeared to be steady. Business lacked snap, but there was a fair movement of moderate lots to local and other consumers on contracts and transient orders.

Sperm.—Quotations were stationary and the market continued to present a firm appearance. There was a fairly active request from local and outside buyers.

Whale.—A steady tone prevailed in the local market for refined oil. London advices reported the sale of approximately 7,000 tons of crude whale oil to Sweden at £40 per ton. This compared with the last previous sale at £15 per ton and was the highest price recorded since 1924.

Markets at Other Centers

Baltimore, Nov. 1.—No further sales of menhaden oil were reported during the last week, with the one tank disposed of the previous week at 33½ cents per gallon the last transaction to become known. A local broker, however, stated that he was in the market for oil at 34 cents, which potential buyers were willing to pay, but found it impossible to get bids, with the producers holding out for higher prices, and with 36 cents mentioned as the figure that might bring out odd lots, though the holders for the most part remained doubtful if they would be able to fill the orders booked earlier in the season because of the drop in the catch of fish. Operations of the fishing fleet in New Jersey and along the Delaware coast have ceased for the season, and even the factories on the lower Chesapeake Bay find hauls now very small, as the fish are moving southward along the coast, and the Virginia craft have been moving down along with the schools as far as they can go. Some menhaden are being caught off the North Carolina coast, and the same may be said of the Florida fishermen, but at neither point are the catches large.

San Francisco, Nov. 1.—Production of California sardine oil slowed last week in the face of a full moon, while at the same time business picked up to the extent that well over 100 tankcars of oil moved in this market here on the basis of 32 cents per gallon in tankcars. The southern California market was also in operation, when a score or more tanks were reported to have gone into contract there at figures stated to have been 34 and 35 cents, f.o.b. production point.

A full moon, during which time the sardine boats are unable to locate the otherwise brightly glowing schools of fish, was responsible last week for a catch in northern California that amounted to only 14,484 tons, compared to some 39,000 tons of the week before. The catch brought up the seasonal total for the period ending October 27 to 134,030 tons, compared to 149,207 tons at the same date last year.

Southern California was primed to get into operation today, the legal opening date of the season in that part of the state, and the boats will probably be bringing in fish this evening. The plants are all in readiness.

In San Francisco Bay the several floating plants tied up at various docks have overcome their labor difficulties with the unions and are in operation, working under the supervision of the California Fish & Game Commission, which so long fought to have their high seas operations curtailed. An initi ative measure on the ballot just a year ago passed by the voters placed the floaters under the jurisdiction of the Commission.

Fats and Greases

Grease.—Local spot prices underwent little change during the week, the tone of the market being steady. There was no snap to business, consumers being disposed as a rule to limit their purchases to moderate lots.

Lard.—No broadening of domestic trade was noted, but there were reports of a somewhat better inquiry for moderate quantities from local and outside consumers. The export movement continued light. Changes in quotations were generally within moderate limits in the absence of wide fluctuations in futures.

Stearin. — Quotations were shaded ¼c., the tone of the market being steady at the lower level. There was fair inquiry.

Tallow. — The local situation continued to be featured by a steady tone. Business was quieter than in the preceding week. There were reports of occasional inquiries, but actual transactions were apparently limited to unimportant quantities, consumers being disinclined to purchase to any important extent in advance of current needs.

Trading in tallow futures on the New York Produce Exchange from October 28 to November 3, inclusive, comprised 3 contracts, a total of 180,000 pounds. Following is a price record for the week:—

	—Cents per pound in tanks— High.	Low.	Close.
January	6.05	6.05	5.90 bid
March	...	...	5.90 bid

Markets at Other Centers

Chicago, Nov. 3.—With a somewhat reduced amount of hog marketing, it is apparent that there has been some resistance in the cash lard market to further price recessions. Tone is fairly steady, and volume of business seems to have been fairly substantial. Shipping trade is fair.

The range of lard quotations from the opening, Saturday, October 28, to the close, Friday, November 3, is shown in the following table:—

	—Per 100 pounds— Open.	High.	Low.	Close.	Previous Friday.
Cash	$6.50	$6.50	$6.22	$6.22	$6.42
Dec.	6.50	6.60	6.15	6.27	6.45
May	7.30	7.35	6.95	7.07	7.22

TALLOWS (tierces).—Edible, 6¼c. to 6½c. per pound; prime, 6c. to 6¼c.; fancy, 6c. to 6¼c.; special, 5¾c. to 6c.

GREASES (tierces).—Choice white, 6c. to 6¼c. per pound; A white, 5⅞c. to 6c.; B white, 5¾c. to 6c.; yellow, 10-16, 5¾c. to 5⅞c.; yellow, 16-20, 5½c. to 5¾c.; brown, 5¼c. to 5½c.

STEARINS (barrels).—Prime oleo, 8¾c. to 9c. per pound; lard, packaged, 7½c. to 8c.; white grease, 6c. to 6½c.; yellow grease, 5⅝c. to 5¾c.; oleo stocks, 10¼c. to 10½c.; No. 2 stocks, 10c. to 10¼c.

Animal Oils

Lard.—Quotations were reduced ¼c. to ½c. per pound, the downward movement being due to lessened cost of production. The market appeared to be steady at the decline. Business was of a conservative character.

Neatsfoot.—The market here was easier, quotations being lowered ¼c. to 1c. per pound. There was a fairly active inquiry though consumers were not disposed to purchase ahead.

Oleo.—Demand was rather more active and the tone of the market appeared to be steady, quotations being maintained at previous levels.

Tallow.—The market was easier, quotations being reduced ¼c. to ½c. per pound, following recent weakness in basic material. There was a fair demand.

Markets at Other Centers

Chicago, Nov. 3.—Animal oils remain quiet and rather featureless.

LARD.—No. 1, 9¼c. to 9½c.

OLEO.—No. 2, 10¼c. to 10½c. per pound.

TALLOW.—Acidless, 9½c. to 9¾c. per pound, tanks; and 9½c. to 9¾c., drums.

Waxes

Bayberry.—The market was strong. Stocks were at the vanishing point and early replenishment with badly needed wax was highly uncertain. Quotations were 38c. to 40c. per pound with emphasis being placed on the outside figure.

Bees.—Crude wax was strong. It was expected that import costs on Brazilian wax would run high when the new crop is ready. Freights and war risk insurance are high enough to affect landed costs here materially. Refined and bleached waxes reflected fully the strong position of crude.

Carnauba.—Importers declared that they could do a huge business if unsold wax were available. Primary market shippers in some instances have demanded extensions on the shipment dates in their contracts. Prices there were strong and in all respects it was a sellers' market at the source. The new crop has been reported to be late because of rains. Local quotations were about nominal and all tended upward. No. 1 yellow, available only in small lots, was understood to have sold as 85c. per pound but importers were not quoting a going market. No. 3 chalky was 43c. per pound and No. 3 North country was 22c. Refined brought 50c. to 52c. per pound with little difficulty.

Japan.—The market was 18c. to 18½c. per pound, strong and tending upward in keeping with the high replacement cost and the persistent demand for spot parcels.

Current prices on animal, vegetable, and fish oils (under Oil), fats, and grease (under Grease) are given in the alphabetical list of prices beginning on page 7

U.S. Research on Oils, Fats To Be Directed by Skau

—Continued from page 5

cil fellow at the Research Laboratory of Physical Chemistry, Massachusetts Institute of Technology.

Dr. Skau spent two years at various foreign universities and at the International Bureau of Standards in Brussels, one year as Guggenheim fellow. For the past two years he has been investigating the effect of ultra-violet light on sterols as International Cancer Research Foundation fellow, at Yale University. He has published numerous papers on the purification and physical properties of organic compounds in the various scientific journals.

Dr. Alexander Schwarcman, research director for Spencer Kellogg & Sons, Buffalo, will be the guest speaker at a meeting of the Dallas Paint, Varnish and Lacquer Association in Dallas, Tex., November 16.

Oils and Fats Statistics For Third Quarter

—Continued from page 5

Oils and Fats Imported

	Pounds.
Wool grease	768,544
Whale oil	17,065,155
Cod oil	3,770,198
Cod-liver oil	18,975,660
Stearic acid	279,919
Cottonseed oil, refined	4,025,455
Corn oil	2,987,266
Peanut oil	317,214
Olive oil, edible	15,358,999
Olive oil, sulphured	8,384,403
Olive oil, other inedible	1,458,865
Chinawood oil	16,879,490
Coconut oil	65,100,469
Palm oil	70,017,878
Soybean oil	130,119
Rapeseed oil	1,268,895
Perilla oil	14,519,321
Teaseed oil	1,472,021
Oiticica oil	7,133,859
Sesame oil	1,077,818
Fatty acids, vegetable	787,082
Carnauba wax	2,200,173
Other vegetable wax	1,540,987
Vegetable tallow	451,965
Glycerin, crude	2,472,833
Glycerin, refined	21,365

Chinawood Oil Arrivals Here and on West Coast

Since the last issue of the REPORTER was published, the arrival has been reported of three lots of chinawood oil at New York and two lots on the Pacific coast, the importations aggregating 560 tons and 250 drums here and 315 drums on the West coast. According to official statistics, importations at all ports during the third quarter of the current year were 16,879,490 pounds against 21,697,649 pounds in the previous quarter and 30,826,526 pounds in the third quarter of 1938.

The best that can be produced. It is 100% PURE BEESWAX and measures up to all the requirements of the U. S. P.

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Prompt Delivery Ex-Warehouse, New York

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FOR BETTER LACQUERS

No. 908 SPECIAL LACQUER COMPATIBLE FRENCH VARNISH

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Low Acid Number
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Especially dewaxed and processed. Lower acid number aiding quick solution and requiring less alkali, thereby producing more durable, more waterproof and high gloss finishes.

Working Samples Cheerfully Submitted

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CHECKLIST OF MONSANTO INTERMEDIATES

This chart lists the essential properties of a part of the intermediates manufactured by Monsanto. To obtain the full list, with complete properties and specifications, write for the booklet "Monsanto Intermediates for American Industry." MONSANTO CHEMICAL COMPANY, St. Louis, U. S. A. District Offices: New York, Chicago, Boston, Detroit, Charlotte, Birmingham, Los Angeles, San Francisco, Montreal, London.

INTERMEDIATE	CHEMICAL FORMULA	CRYSTALLIZING** or MELTING* POINT	DISTILLATION RANGE	USES
Benzyl Chloride	$C_6H_5CH_2Cl$	———	175.0°C. to 185.0°C. (95% within 3.0°C.)	Dye intermediate, production of perfume bases, pharmaceuticals, plasticizers, resins, wetting agents, rubber accelerators, gasoline gum inhibitors.
Cyclohexylamine	$C_6H_{11}NH_2$	———	129.0°C. to 136.0°C. (95% within 4°C.)	Dyestuff intermediate, solvent emulsifying agent, insecticide, organic syntheses.
Dichlorphenol 1:2:4	$C_6H_3OHCl_2$	42.0°C. min.**	———	Dye intermediate and germacide.
Dinitraniline 1:2:4	$C_6H_3NH_2(NO_2)_2$	177.5°C. min.*	———	Dye intermediate.
Dinitrochlorbenzene 1:2:4	$C_6H_3Cl(NO_2)_2$	46.5°C. min.**	———	Production of sulfur black, azo dyes, explosives, photographic chemicals.
H Acid	$C_{10}H_4OH{\cdot}NH_2{\cdot}SO_3H{\cdot}NASO_3$	———	———	Dyestuff intermediate, developer.
Metachloraniline	$C_6H_4NH_2Cl$	—10°C.**	228.0°C. to 231.0°C. dry point. (95% within 1.0°C.)	Dyestuff and pigment manufacture.
Monsanto Salt	$C_6H_3CH_3ClNaSO_3$	———	———	Pigment base for printing ink lakes.
Ortho anisidine	$C_6H_4{\cdot}OCH_3{\cdot}NH_2$	4.8°C. min.**	223.0°C. to 226.0°C. (95% within 2.0°C. min.)	Component of azo dyes.
Orthochloraniline	$C_6H_3NH_2Cl$	—4.5°C. min.**	206.5°C. to 211.5°C. (96% within 3°C.)	Dye intermediate.
Orthochlorphenol	C_6H_4OHCl	———	173.0°C. to 177.0°C.	Preparation of alizarines, pyrocatechol, and various organic syntheses.
Orthonitraniline	$C_6H_4NH_2NO_2$	70.0°C. min.*	———	Dyes, dry colors, lakes & toners.
Orthonitrochlorbenzene	$C_6H_4ClNO_2$	31.7°C. min.**	———	Dye intermediate.
Orthophenetidin	$C_6H_4NH_2OC_2H_5$	—4°C. **("seeding" necessary)	230.5°C. to 233.5°C. (95% distills within 2°C. max.)	Dye intermediate.
Parachloraniline	$C_6H_4NH_2Cl$	69.5°C. min.**	229.0°C. to 233.0°C. (95% within 1.5°C.)	Dye intermediate.
Paranisidine	$C_6H_4OCH_3NH_2$	57.2°C. min.**	240.0°C. to 243.0°C. (95% within 2°C.)	Component of various azo dyestuffs.
Parachlorphenol	C_6H_4OHCl	42.0°C. min.**	218.0°C. to 222.0°C.	Preparation of hydroquinone, pharmaceutical derivatives and quinzarine.
Paranitrochlorbenzene	$C_6H_4ClNO_2$	82.5°C. min.**	———	Synthesis of dyestuff intermediates.
Paranitrophenol	$C_6H_4OHNO_2$	112.0°C. min.*	———	Dye intermediate, photographic chemicals, leather tanning.
Paraphenetidin	$C_6H_4NH_2OC_2H_5$	4.0°C. min.**	248.0°C. to 251.0°C. (95% distills within 2°C. max.)	Dye intermediate.
Paratoluenesulfonchloride	$C_6H_4CH_3SO_2Cl$	65.5°C. min.**	———	Organic condensing agent, preparation of esters as alkylating agents, used in selective dyeing of rayon fabrics and in manufacturing of synthetic tanning materials.
Phenol	C_6H_5OH	40°C. min.**	———	Dyes, resins, explosives, synthetic tanning materials, pharmaceutical antiseptics, deodorants.
Phthalic Anhydride	$C_6H_4(CO)_2O$	131.0°C. min.**	———	Dye intermediates, dyes, perfumes, pharmaceuticals, plasticizers, resins.
Salicylic Acid, Technical	$C_6H_4OHCOOH$	158°C. min.*	———	Dye manufacture, preservative for glues and leather.
Sulfuryl Chloride	SO_2Cl_2	———	———	Chlorinating agent.

MONSANTO CHEMICALS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

Drugs, Fine Chemicals

Menthol Reduced — European Quicksilver Advanced — Methanol Contracts Booked Well—Seasonal Items Begin to Move—Minor Alkaloids Strong — Alcohols Active and Very Firm

Drugs and fine chemicals were fairly quiet last week. The feverish demand featuring the market for more than six weeks was no longer in evidence so far as manufacturers were concerned. Brokers and commission men, however, continued to report the inflow of a substantial number of inquiries and stated that they oftentimes found it difficult or impossible to secure deliveries from first hands.

The tendency of all producers was to care for regular customers first. In caring for such buyers, they found ample sales outlets for their production. Much of the business sidestepped by the producers had a speculative angle that they were most desirous of not strengthening. Therefore there was a resale market for numerous items and prices in that field naturally were higher than first hand quotations.

In general, demand seemed to have assumed a fairly normal character and volume last week. Of interest was the rise in the regular call for items of seasonable interest and need during the Winter months. Sales in such materials gained considerably and the rise was expected to continue until the full flood of Winter consumption arrived.

Prices showed marked stability so far as producers were concerned. Many items show an advanced cost of production based on higher raw material costs. This was particularly so in those products made from imported raw materials, the cost of which has risen substantially because of conditions stemming from the war.

Acid, Acetylsalicylic.—Demand was very good and the market prices were well supported in all respects. Gradual expansion in consumption was reported likely during the Winter months.

Acid, Citric.—Demand was rather quiet. Consumers bought in accordance with needs and were free from any fear that prices would be changed. Quotations in force now will remain unchanged for the year ended October 1, 1940

Acid, Tartaric.—In all respects the market was firm. Raw material was not so readily obtainable. Shipping from primary markets was subject to delays incident to the influence of the war. Prices were uniformly high and strong abroad. Spot demand was very good.

Adeps Lanae.—All sellers had a strong view on values and prices were thoroughly maintained in all respects. Offerings were moderate and sellers showed considerable reserve. Demand was good.

Alcohol.—Movement was good. Pure and denatured material were in steady request and the movement maintained its recent gain that came parallel with the general stimulus to the consuming industries. Competition was far less an element in the market than a short time back and the idea seemed to be that scheduled prices were being obtained.

Butyl Alcohol.—Prevailing quotations were on the firm side. Supporting demand was reported to be very good and recent expansion in takings has been maintained. Production in Italy in 1938 gained 57 percent. The quantity produced was 15,151 metric quintals, comparing with 9,639 metric quintals in the previous year.

Caffeine.—Reports in local circles, obtained from buyers, showed that some sellers of this item were controlling sales in firm fashion. Quantities asked for were being trimmed considerably and new customers stood little chance of getting goods from some quarters. It was inferred that a resale market was developing.

Castor Oil.—The market was very firm. Most prices were nominal and reports indicated that it was increasingly difficult to place new orders for car-lot quantities. The trouble is in getting raw material from South America. The consuming market was broad and active. Quotations remained unchanged.

CHICAGO, Nov. 2.—Orders for castor oil for medicinal and other uses are reported to be holding up well, as regards aggregate amount of material involved. Buyers' nervousness as to adequate supplies, noted some weeks ago, seems still evident in some quarters. Ruling prices are:—No. 1, barrels, car lots, 11⅝c. per pound; barrels, less car lots, 12¾c.; returnable drums, car lots, 11⅛c.; drums, less than car lots, 12¼c.; tanks, 10⅞c.; No. 3, barrels, car lots, 11⅛c.; barrels, less than car lots, 12¼c.; returnable drums, car lots, 10⅝c.; drums, less than car lots, 11¾c.; tanks, 10⅜c.

Chloral Hydrate. — The new and higher price schedule set up in the previous week proved to be a firm and well maintained affair. Demand was normally active and the outlook for business was good.

Cocaine. — Reserves were ample to meet the usually more active consuming season during the Winter months. Prices remained steady and well stabilized.

Codeine.—Some early season buying was in evidence and from now on movement into consumption was expected to gain until the normal sales volume in Winter months has been reached. No shortage in supply was indicated since the Treasury Department recently stated that present stocks of raw material and narcotics in bonded warehouses controlled by the Federal Government were sufficient to meet normal consumption for three years.

Codliver Oil.—While shipments from Norway must run the dangers and risks of war on the high seas, at the present time stocks in the United States were said to be adequate and in all probability consumption needs would be covered. Prices were very firm.

Corn Syrup. — No further change in quotations was made last week. However, undertones continued fairly easy and it was in most ways a buyers' market. Offerings were liberal.

Cream of Tartar.—Because of the strength in basic raw material, the position of this item was one of substantial strength and freedom from competition. Demand was about normal again and had a steady quality throughout the past week.

Creosote Carbonate.—Some gain in demand was noted. The improvement was along lines normal for the pre-winter period. Indications pointed to normal consumption during the cold weather months. Prices were very steady.

Ephedrine.—Interest has gained. The season of best consumption was directly ahead, and it was felt that good sales would be the result of manufacturing consumers' comparatively moderate inventories of this raw material. Prices were steady.

Ethyleneglycol. — The item continued to be one of the instruments maintaining an even balance in glycerin. Demand was reported very good and fully stabilized quotations prevailed. Consumption on anti-freeze account was naturally gaining.

Formaldehyde.—The fact that producers of synthetic methanol have extended present prices through the first quarter of 1940 was naturally a stabilizing influence on quotations for this item. Also, demand of excellent volume tended to keep quotations firm.

Glycerin.—Business was very good. In fact, leading factors oftentimes turned aside certain types of demand that would have run to a substantial size. Regular manufacturing consumers were said to be receiving their full require-

Price Changes

Prices were changed during the past week as follows:—

Advanced

Quicksilver, European, $1 per flask.

Reduced

Menthol, natural, 10c. per lb.

Comparative Values

Index numbers compiled from thirty-five typical drugs and fine chemicals on the basis of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
194.9	**195.2**	**194.9**	**182.5**

Market news that may have developed after this report was sent to press will be found on page 4.

Current prices on drugs and the fine chemicals are given in the alphabetical list of prices beginning on page 7

MILK SUGAR

(LACTOSE)

Produced at Our Gustine, Cal. Plant

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Highest Quality — Best Prices

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Manufacturers and Importers for thirty years
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PENNSYLVANIA COAL PRODUCTS COMPANY
PETROLIA, PENNSYLVANIA

VITAMIN PRODUCTS
FISH LIVER OILS
ATLANTIC COAST FISHERIES CORP. OF N. Y.
111 JOHN STREET, NEW YORK, N. Y.

QUICKSILVER
TARTARIC ACID
CREAM OF TARTAR
TEASEED OIL RED OIL FATTY ACID RICE BRAN OIL
LEGHORN TRADING CO., 21 West St., New York City
Branches: Boston Philadelphia

WANTED
GLYCERINE
GILBERTON CORPORATION
7 West 22nd Street CHelsea 3-5537 New York City

BENZOL PRODUCTS COMPANY
237 South Street, Newark, N. J.
MANUFACTURERS OF FINE CHEMICALS
CINCHOPHEN NF VI
NEO-CINCHOPHEN U. S. P.

NATIONAL BRAND MILK SUGAR
QUALITY STANDARD THE WORLD OVER SINCE 1883
ALPHA LACTOSE POWDERED-GRANULAR
BETA LACTOSE IMPALPABLE
NATIONAL MILK SUGAR COMPANY
Division of The Borden Company
350 MADISON AVENUE NEW YORK, N. Y.

ments promptly and at very steady prices. Imports of crude glycerin in September totaled 1,324,075 pounds, coming from the following primary markets.

	Pounds.
France	45,130
Cuba	197,987
Argentina	243,410
Uruguay	56,000
Philippine Islands	781,548
Total	1,324,075

CHICAGO, Nov. 2.—A quiet market prevails in glycerin, both c.p. and other grades. There is considerable stability in the present situation, sellers report. Orders are for actual needs. Ruling prices are:—Chemical pure, tanks, 12¼c. per pound; drums, car lots, 12½c.; drums, less than car lots, 13c.; high gravity, tanks, 11¾c.; drums, car lots, 12c.; drums, less than car lots, 12½c.

Mannitol. — Ample production was available and sales were in good volume at fully stable quotations throughout the past week. A report from Italy stated that exports of mannite totaled 199 quintals in 1937, comparing with 106 quintals in 1936. Of the total, the United States received but 15 quintals in 1937 and 12 quintals in 1936. A quintal is 220.46 pounds.

Menthol.—Quotations were lower at $3.25 to $3.35 per pound for natural material from Japan. The market had gained in competition. Domestic synthetic material remained firm and received an excellent call.

Mercurials. — Quotations were still well maintained regardless of the recent decline in prices on raw material. Demand for the major hard mercurials was very good and had a steady quality that contributed much to market stability.

Methanol.—Good progress was made in writing 1940 contracts. Present prices stand good to the end of the first quarter. General demand was very good and a market of full stability prevailed. Italian production in 1938 totaled 60,117 metric quintals, comparing with 54,968 metric quintals in 1937. Monthly statistics on production of crude and synthetic methanol, representing almost the entire output of these commodities in the United States, have been released by Director William L. Austin, Bureau of Census, Department of Commerce.

Production

	Gallons			
	1939		1938	
	*Synthetic.	Crude.	*Synthetic.	Crude.
Jan.	2,462,884	315,814	2,896,894	458,347
Feb.	2,267,339	336,117	2,299,609	408,930
Mar.	2,406,564	364,500	2,343,828	432,800
April	2,276,385	389,423	1,975,999	314,664
May	1,778,581	354,415	1,860,400	330,875
June	2,295,288	343,992	1,629,570	293,091
July	2,495,394	377,755	1,449,607	309,219
Aug.	2,678,983	359,594	1,897,847	281,988
Sept.	2,639,934	404,876	1,929,655	303,225
Total	21,301,352	3,282,526	18,274,409	3,133,139

* The refined equivalent would be approximately 82 percent of the crude production.

Wood Carbonized

	Cords	
	1939.	1938.
January	33,353	44,874
February	31,715	40,001
March	33,353	43,281
April	36,176	31,429
May	33,857	32,873
June	35,592	31,056
July	36,049	29,354
August	34,396	28,126
September	40,557	30,137
Totals	316,896	413,312

Morphine.—Demand for sulphate has not gained much of late, but a more active request was expected to arise when Winter gets underway. It seemed probable that ample stocks would be available throughout the major consuming season.

Quicksilver.—Quotations on European metal were advanced to $106 per flask. This was a c. & f. price and did not include duty nor war risk insurance. The landed price was estimated to be about $136 per flask, which contrasted with the present spot market at $140 to $142 per flask. The spot London price was $109 per flask, warehouse. The f.o.b. Spanish and Italian quotation was $104. Demand on spot was dull.

SAN FRANCISCO, Nov. 1.—Local sellers report that quicksilver is changing hands here in rather small quantities on the basis of $135 per flask. Buyers making inquiry are not numerous.

Silver Nitrate.—The schedule of prices since the last report prevailed as follows, covering quantities of 100 ounces; small lots from 1c. to 2c. more per ounce, and quantities of 500 ounces are quoted at about 1c. less. Comparison of prices of bullion in New York and London is also provided:—

	Per ounce		
	Nitrate.	Bullion	
	Cents.	New York. Cents.	London. Pence.
Saturday	27	35	23⅝
Monday	27	34¾	23⅞
Tuesday	27	34¾	23¼
Wednesday	27	34¾	23¼
Thursday	27	34¾	23⅞
Friday	27	34¾	23⅞

Frederick P. Cooke, of Valentine & Co., this city, has been admitted to the Fifty Year Club of the National Paint, Varnish and Lacquer Association. Mr. Cooke has been affiliated with Valentine & Co. for the entire fifty years.

Northam Warren Corporation, cosmetic manufacturer, Stamford, Conn., held dedication ceremonies of its $1,000,000 plant November 4, with Raymond E. Baldwin, governor of Connecticut; participating.

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Dependable Products Since 1873
LOCKLAND, CINCINNATI, OHIO

Alcohol Production Reported for 1938-39

—Continued from page 5

Denatured Alcohol

(Including denatured rum)

Denaturing Plant Operation

(Plants operating numbered 38* in 1938-39; 43 in 1937-38.)

	Wine gallons— 1938-39.	1937-38.
Production, total	100,740,510	94,607,741
Completely denatured	17,179,433	25,598,717
Specially denatured	83,561,077	69,009,024
Withdrawals, total	99,872,629	94,981,204
Completely denatured	17,204,615	25,727,946
Specially denatured	82,668,014	69,253,258
Losses, total	100,071	101,569
Stocks June 30, total	1,981,559	1,191,624
Completely denatured	655,906	699,772
Specially denatured	1,325,563	491,852

Bonded Dealers' Operations

(Number operating, 55 in 1938-39; 64 in 1937-38.)

	Wine gallons— 1938-39.	1937-38.
Received†	3,243,249	3,019,005
Removed†	3,143,007	3,081,681
Losses in storeroom	1,937	1,944
Stocks June 30	378,009	283,206

Bonded Manufacturers' Operations

(Number operating, 4,405 in 1938-39; 4,321 in 1937-38.)

	Wine gallons— 1938-39.	1937-38.
Received	82,417,391	69,959,309
Recovered after use	61,248,937	57,198,813
Total used‡	142,969,775	127,456,902
Losses	62,761	87,182
Stocks June 30	3,162,641	2,708,739

* Includes 2 denaturing plants operated in conjunction with experimental alcohol plants in 1938 and 1 in 1939.
† Excluding inter-dealer shipments.
‡ Including amount recovered and reused.

Withdrawals by Formulas

	Wine gallons— 1938-39.	1937-38.
1	22,891,605	18,421,779
2-A	707	13,356
2-B	17,943,677	17,382,747
3-A	976,801	905,845
3-B	3,827	1,497
4	1,703,355	1,583,043
5	1	.....
6-A	27,742	46,217
6-B	50,734	55,919
12-A	255,707	222,563
13-A	608,155	704,267
17	1,054,947	1,312,917
18	6,725,404	6,852,795
19	62,269	72,889
20	1,050	1,260
22	456	732
23	51	885
23-A	1,518,102	1,318,000
23-B	5*	199
23-C	20	4,155
23-D	2	51
23-E	31	21
23-F	3,124	53
23-G	2,231,780	2,831,725
23-H	1,025,316	.....
24	1,085	1,145
25	14,100	13,322
25-A	65,233	50,621
27	35,348	24,087
27-A	7,543	8,746
27-B	44,579	29,984
28	192,985	226,136
28-A	457,478	318,194
29	15,987,437	9,725,817
30	284,387	251,848
31-A	5,583	3,851
32	268,241	41,565
33	3,496	3,401
33-A	5	.....
35	10,031	19,964
35-A	3,861,047	2,958,512
36	5,351	4,111
37	582,181	525,267
37-A	1,926	1,848
38	25,698	22,190
38-A	150	100
38-B	428,420	283,126
38-C	13,947	13,927
38-D	13,475	18,408
38-E	182	184
39	7,602	6,428
39-A	20,273	23,708
39-B	196,243	211,763
39-C	556,671	491,086
39-D	10,049	17,600
40	2,496,767	2,173,259
42	16,221	15,582
44	5,105	14,457
45	7,474	7,173
46	1,560	1,202
47	5,283	4,225

* Represents an excess of returns over withdrawals.

Armour and Lewis to Form Illinois Inst. of Technology

—Continued from page 3

and humanities, now taught in both colleges, in a manner which will broaden and strengthen the whole. The basic educational program will be built around the various fields of science, including physics, chemistry, mathematics, geology and biology; the engineering program will include the accredited undergraduate curricula in civil, chemical, electrical, and mechanical engineering. An expansion of work in the division of architecture and applied art now becomes possible through the union of the institutions and the fact that architects of world renown recently were added to the staff.

New emphasis will be placed upon industrial management to meet the increasing demands of industry for men with this training and for research services in the field of management and personnel.

American Viscose to Make Synthetic Yarns From Resin

Arrangements have been completed between Carbide and Carbon Chemicals Corporation, a unit of Union Carbide and Carbon Corporation, and American Viscose Corporation for the production of Carbide's new "Vinyon," synthetic resin yarn. It is stated that Carbide will manufacture the resin powder, while American Viscose will convert the powder to staple fiber and continuous filament yarns. Production facilities of both companies are already in operation, and manufacture of the new fiber is well under way.

"Vinyon" continuous filament and staple fiber are available in a range of sizes. Extensive tests have proven that the yarn can be woven, knit, or otherwise handled much the same as other textile fibers. Dyeing procedures for a full range of colors have been developed.

The many unique properties of "Vinyon" synthetic yarn and fiber include high tensile strength, both wet and dry, high true elasticity, resistance to attack by chemicals or fungi, water resistance, thermoplasticity, and non-support of combustion. These characteristics suggest many specialized applications for the product.

Associated Dyeing & Printing Company of New Jersey has purchased the three Paterson, N. J., plants of the Adams Dyeing & Printing Company of New Jersey.

Ralph Lee of R. & H. chemical division of E. I. duPont, this city, became a father for the second time recently. His second son, weighing eight pounds, two ounces, and Mrs. Lee were reported doing nicely.

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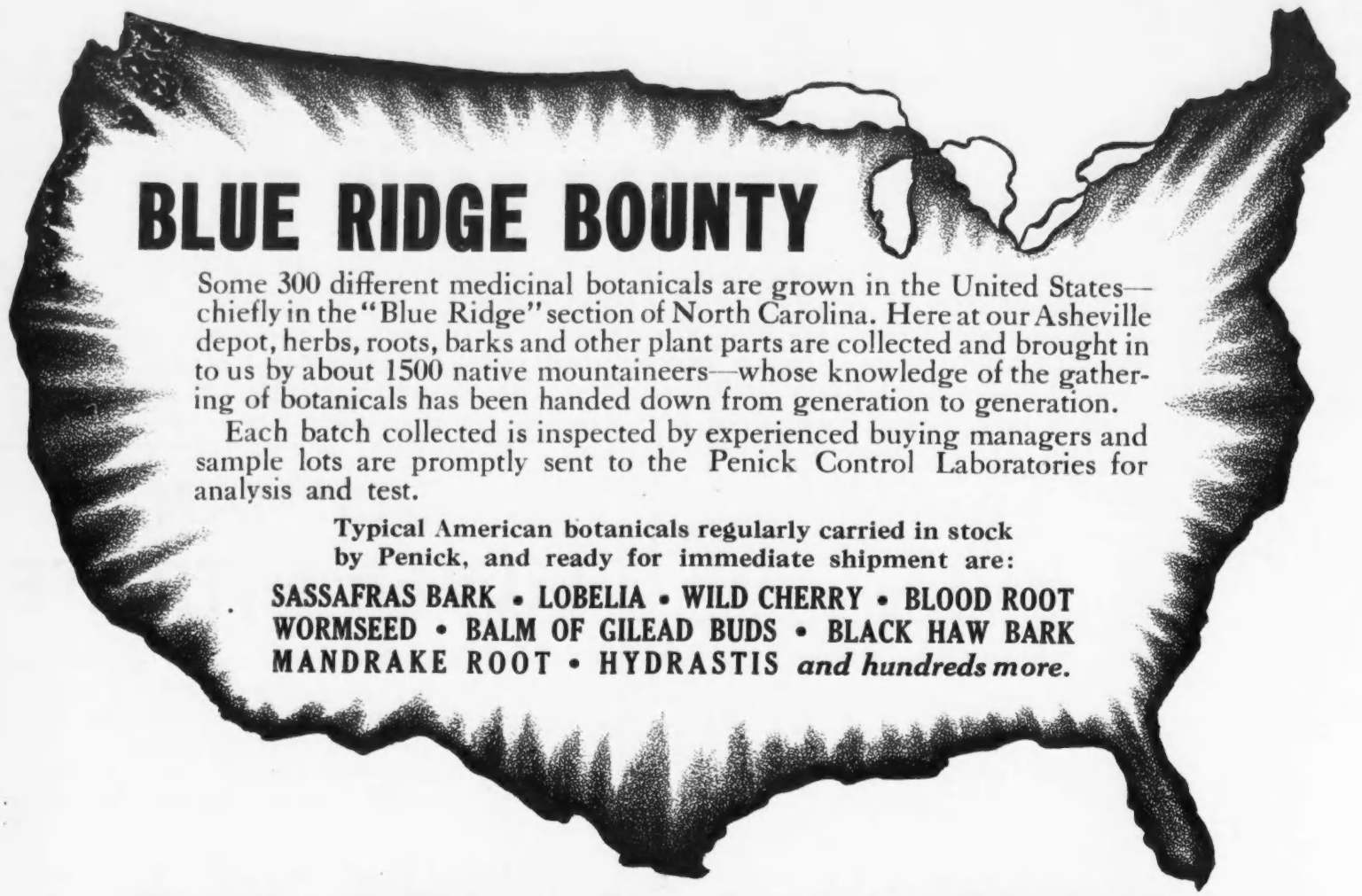

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Some 300 different medicinal botanicals are grown in the United States—chiefly in the "Blue Ridge" section of North Carolina. Here at our Asheville depot, herbs, roots, barks and other plant parts are collected and brought in to us by about 1500 native mountaineers—whose knowledge of the gathering of botanicals has been handed down from generation to generation.

Each batch collected is inspected by experienced buying managers and sample lots are promptly sent to the Penick Control Laboratories for analysis and test.

Typical American botanicals regularly carried in stock by Penick, and ready for immediate shipment are:

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THE WORLD'S LARGEST BOTANICAL DRUG HOUSE

Mercury Output in U. S. Was 1,500 Flasks in Sept.

Domestic production of mercury during the month of September was approximately 1,500 flasks, according to the Bureau of Mines, United States Department of the Interior. This total is predicated on reports received from thirty mines that accounted for 95 percent of the total output in 1938. The rate of production during September was almost identical with the monthly average of 1,499 flasks for 1938, when the total output amounted to 17,991 flasks. Producing companies held small stocks of metal at the end of September, those who reported on production indicating an inventory of only 318 flasks.

California and Oregon supplied about 85 percent of the total output in September. Production in Oregon increased 9 percent over the average monthly rate in 1938, whereas that in California declined 20 percent. Arkansas, Idaho, Nevada, and Texas also reported mercury production in September. Idaho's output was the first recorded in a nuber of years and comes from a new mine in the vicinity of Weiser.

Ornamental Bowls Containing Soap Subject to Duty

OPD Washington Bureau
October 30, 1939

Ornamental bowls are not the usual containers of shaving soap and are subject to duty when imported containing shaving soap, it was decided today by the United States Court of Customs and Patent Appeals in a case brought by McKesson & Robbins, Inc.

The bowls were assessed a duty of 50 percent ad valorum and 40 cents per pound because of their similitude to articles in chief value of galalith. The soap was imported in the bowls invoiced as lavender shaving bowls. The importer contended that the bowls were free of duty because they were the usual container for this type of shaving soap, and introduced evidence to show that other brands are frequently packaged in ornamental bowls, that these bowls are designed especially for this soap, and that users generally throw the bowls away when their contents is consumed. The court held that this evidence did not upset the presumption of the Collector of Customs that the bowls are unusual containers.

British Codliver Oil Makers Merged Into Portaccord, Ltd.

Forced by necessity arising from the war, the three leading British codliver oil producers have been merged into a single company to be known as Portaccord, Ltd., according to advices from London. The companies forming the merger are the British Cod Liver Oil Producers (Hull), Ltd., Grimsby Cod Liver Oils, Ltd., and Isaac Spencer & Co. (Aberdeen), Ltd. K. MacKennan has been appointed managing director of the amalgamated concern.

Tannin Stability to Be Studied

Kenneth P. DuBois has been selected as the recipient of the fellowship grant of $400 recently made to the School of Pharmacy, Purdue University, by the American Pharmaceutical Association, for the study of antioxidants in extractive preparations of tannin-bearing drugs. Mr. DuBois is a graduate of the School of Pharmacy, South Dakota State College, and has been engaged recently in research at that school. He will spend the ten months in the study of substances which may prevent the oxidation affecting astringent preparations. One of these is the new solution of tannic acid.

McK. & R. Earnings Up

Net profit of McKesson & Robbins, Inc., and consolidated subsidiary companies for the quarter ending September 30, 1939, was $899,397, after Federal income taxes, according to an unaudited income statement released by William J. Wardall, trustee. The 1939 profit did not include any provision for interest and amortization charges on the company's twenty-year 5½ percent convertible debentures and is subject to year-end adjustments, Mr. Wardall said. In the corresponding period of 1938 the company earned $279,987 after provision for Federal income taxes and interest and amortization charges on the outstanding debentures. The income figure for 1938 was after reconstruction so as to eliminate fictitious sales and profits in the crude drug department. For the first nine months of the year, on the same basis, the company earned $2,609,253 as compared to $628,077 in 1938, Mr. Wardall reported.

Corporation Earnings

	Period.	1939 Net income.	1939 Per share.	1938 Net income.	1938 Per share.
American Agricultural Chemical Co.	3 Mos.	*$94,633	...	*$162,339	...
Bausch & Lomb Optical Co.	9 Mos.	1,133,899	$2.31	337,013	$0.36
Beech Nut Packing Co.	9 Mos.	1,726,707	3.95	1,747,563	3.99
Container Corp. of America	Year	418,884	.53	*65,757	...
Corn Products Refining Co.	9 Mos.	7,072,838	2.29	7,113,111	2.30
Granby Cons. Mining Smltg.	9 Mos.	411,002	.91	189,863	.42
Howe Sound Co.	9 Mos.	1,757,219	3.71	1,512,049	3.19
Lehn & Fink Products Co.	9 Mos.	434,392	1.09	356,467	.89
MacAndrews & Forbes Co.	9 Mos.	599,538	1.68	518,546	1.41
National Gypsum Co.	9 Mos.	1,216,044	.80	751,008	.43
Paraffine Companies, Inc.	3 Mos.	481,971	.96	336,403	.66
Penick & Ford, Ltd., Inc.	9 Mos.	911,347	2.47	843,248	2.28
Sunshine Mining Co.	9 Mos.	2,271,996	1.52	2,991,524	2.01
U. S. Gypsum Co.	9 Mos.	5,730,861	4.46	3,788,945	2.83
Victor Chemical Works	9 Mos.	735,784	1.06	494,794	.71

* Deficit.

Pepsi-Cola Fraud Suit Dismissed

Judge Luther B. Way in the Federal court in Richmond, Va., November 2 dismissed the suit of Alexander W. Herman & Co., New York, charging that the assets of the original Pepsi-Cola corporation had been acquired by fraud in a bankruptcy sale some eight years ago. The judge ruled that the alleged fraud by R. C. Megargel, C. W. Guth, and others had not been proved; and that the case would have been thrown out also because of the long time that the petition for its reopening had been deferred.

Gamma Drug Company, Bronxville, has filed a certificate of voluntary dissolution in the office of the secretary of New York state.

Squibb Sets Pace In N.Y. Drug Bowling Race

E. R. Squibb & Sons took undisputed possession of first place in the New York Wholesale Drug Bowling Association league last week. Carbide and Carbon Chemicals Corporation, tied for the lead previously, dropped to second place. The standing of the teams follows:—

	Won.	Lost.
E. R. Squibb & Sons	12	3
Carbide & Carbon	10	5
Chas. L. Huisking	9	6
Mallinckrodt	8	7
R. & H.-Du Pont	8	7
Chas. Pfizer & Co.	7	8
American Spice Trade	5	7
Church & Dwight	5	10
Fritzsche Bros.	5	10
Dodge & Olcott	3	9

Monsanto to Erect Laboratory For Plastics Research in Mass.

The Monsanto Chemical Company, St. Louis, plans the construction of a new plastics research laboratory in Springfield, Mass. The new building, designed to house the company's research staff and laboratory facilities, will be the first structure at the Springfield plant designed exclusively for research activity. The research will be conducted under the direction of T. S. Carswell, director of development and research.

Botanical Drugs, Spices, and Gums

Demand of Calmer Sort Succeeds the Recent Frenzy — Spot Prices Leveling — Foreign Shipment Prices Likely to Bar True Weakness in Spot Values

The market for botanical drugs was calmer last week when compared with the activity that had prevailed even as recently as a fortnight ago. Demand there was and plenty of it, but it was a sane, sound sort of demand; a demand that seemed based more on actual needs than on the advisability of increasing inventories because a war was afoot in Europe. Medicinal crude drugs displayed substantial stability in prices, the leveling off process in the past two weeks seemingly have established values fairly close to those resulting from the normal operation of the law of supply and demand. Condimental items took a stout beating as trade continued to dry up and holders of goods sought to realize profits that at present are often of the paper variety.

The leveling-off of spot prices, even the recessions from the peak of the advance, should not be interpreted as market weakness, in the opinion of well informed local authorities. Definite bars to continued decline exist and are likely to exist so long as there is war. One bar of conspicuous strength is the prices prevailing abroad. Present replacement costs are often double, and some times more than double, those prevailing prior to September 1. Foreign prices on export parcels did not get off to the advance as quickly as spot quotations, but once underway they soared steadily higher. Shippers abroad hold strong views on the value of their unsold stocks. With the next crop of botanicals a doubtful quantity, foreign shippers have a strong fixation as to what they can get for goods in hand. They are not likely to reflect promptly any leveling-off of either spot prices or demand for spot goods.

Entries of botanicals at the port of New York since the week of January 1, 1939, and the detention of these items by the Department of Agriculture because of the presence of matter rendering them unfit for human consumption were:—

	Bags	
	Detained.	Entered.
Anise	123	2,285
Belladonna	...	260
Caraway	1,864	23,159
Cardamom (cases)	32	1,108
Celery	...	2,762
Coriander	195	11,672
Cumin	278	3,469
Digitalis leaves (cases)	2	...
Dill	...	1,026
Fennel	421	1,556
Henbane leaves (bales)	...	126
Mustard	...	24,437
Poppy	...	25,012
Sage leaves (bales)	45	2,814
Sesame	3,050	15,165
Stramonium	299	389
Thyme	40	1,188

Price Changes

Prices were changed during the past week as follows:—

Advanced

Buchu leaves, 15c. per lb.
Ergot, 50c. per lb.
Kamala, 3c. per lb.
Marjoram, French, 1c. per lb.

Reduced

Canary seed, Argentine, ¼c. per lb.
Turkish, ¼c. per lb.
Celery seed, French, 1c. per lb.
India, ½c. per lb.
Cumin seed, Algerian, 2½c. per lb.
Morocco, 1c. per lb.
Cassia, Batavia, 1c. per lb.
shortstick, ¾c. per lb.
China, selected rolls, ½c. per lb.
broken, ½c. per lb.
Clove, Madagascar, 3c. per lb.
Dill seed, recleaned, ½c. per lb.
Juniper berries, 2½c. per lb.
Laurel leaves, ¼c. per lb.
Mustard seed, California brown, ¼c. per lb.
Danish yellow, ¼c. per lb.
Mace, Banda, 5c. per lb.
Slauw, 2c. per lb.
Nutmegs, West Indian, ¼c. per lb.
Poppy seed, 1c. per lb.
Paprika, Hungarian, extra fancy, 1c. per lb.
medium, 1c. per lb.
Portuguese, extra fancy, 1c. per lb.
fancy, 1c. per lb.
Spanish, extra fancy, 2c. per lb.
Pepper, black, Lampong, ¼c. per lb.
white, Java Muntok, ½c. per lb.
Saigon, 1c. per lb.
Red, chillies, Japanese, 1c. per lb.
Saffron flowers, Spanish, $8 per lb.
Sage, stemless, ½c. per lb.
garden, 1c. per lb.
Vanilla beans, Bourbon, 50c. per lb.

Comparative Values

Index numbers compiled from forty typical botanicals on the basis of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
185.6	180.6	179.6	121.7

Market news that may have developed after this report was sent to press will be found on page 4.

Balsams

Copaiba. — Undertones were firm and demand was very good. Quotations were well maintained in a market that lacked much competition.

Peru.—Consumption ran to excellent figures and some sellers commanded prices substantially higher than those quoted in formerly normal sources of supply. The market was very firm.

Barks

Black Haw.—The market was fundamentally firm and holders of root bark were said to be reserved in their offerings because of the replacement position of the item. Demand was steady.

Cascara Sagrada.—The Pacific Coast market was firm and that on spot showed substantial strength as to prices. Stocks at the source have been well concentrated in firm hands who view the future of the item as one committed to strength.

Cocillana.—Some counted the market very firm and reported sales at prices justifying that view. Others reported sales at competitive levels, prices ranging 40c. to 48c. per pound, according to seller.

Elm.—The trade was well prepared for the season of expending consumer demand and throughout the past week a firming of market undertones seemed underway. Also, request broadened some.

Sassafras. — Quotations were firm in sympathy with the general underlying tone of the whole botanical market. Demand was still moderate, but the active season for sales was not far away.

Beans

Vanilla. — The market has become considerably quiet. A tapering off of the urgent buying following the war has developed and since the price of Bourbon beans is even now the highest in twenty-five years, with one exception, dealers viewed buyers' conservatism as no more than could be expected. Bourbons ranged $6 to $6.75 per pound as to quality. No easing off of quotations on Mexicans and South Americans has taken place. All manufacturing requirements are being cared for promptly.

Berries

Juniper.—Sales in moderate sized lots were made last week at 8½c. per pound. As to quality, the market ranged to 10c. and on the whole the situation was fairly quiet notwithstanding the uncertainty of foreign shipments reaching this country.

Raspberries.—Dried fruit continued firm on spot, reflecting the lack of easier undertones in the primary market and tending to discount the fact that immediate demand was not substantial.

Flowers

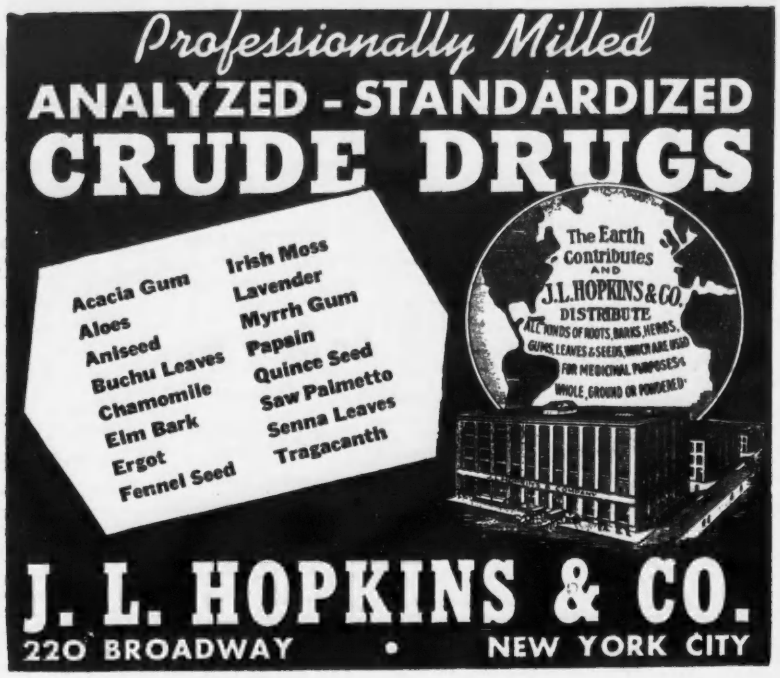
Arnica.—The surge of market undercurrents has been supplanted by a more placid spot position now that some goods have gotten here from abroad. The market prices, however, continued steady and free from further change.

Chamomile.—The article seemed to have been established at a level where more of stability and less of price fluctuation might be expected for the immediate future. There still remained the uncertainty of future arrivals from Europe.

Lavender.—The spot has been almost totally wiped clean of stocks and a strictly nominal situation prevailed in all directions. France offers nothing for shipment.

Pyrethrum.—Slight easier undertones have appeared in most markets but since prices abroad had been exceptionally high, such a development was in order since crops were being offered for shipment. Exports of flowers from the British crown colony of Kenya totaled 35,987 hundredweights in 1938 of which quantity 30,362 hundred-

Current prices on botanical drugs and spices are given in the alphabetical list of prices beginning on page 7



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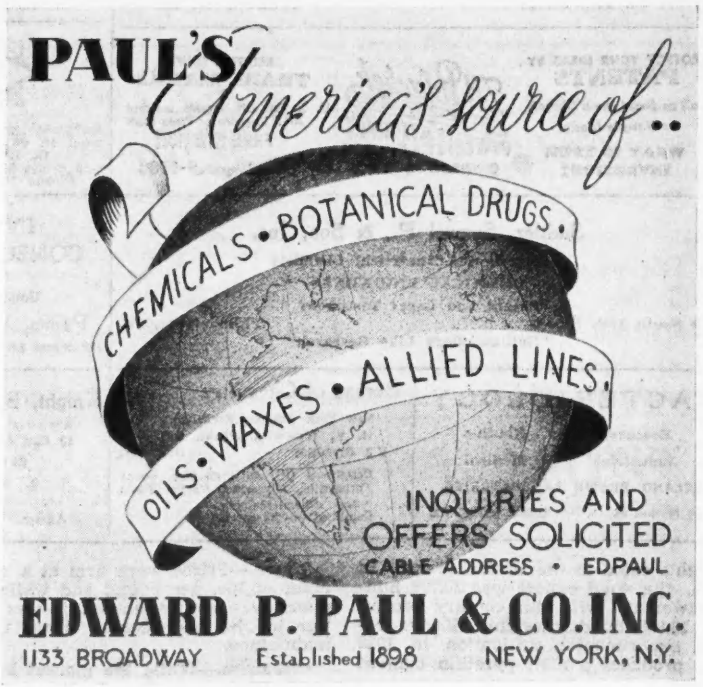
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weights came to the United States. In 1936, the total export was 20,798 hundredweights, with this country receiving 18,839 hundredweights. Kenya began experimental cultivation in 1928 and produces a high pyrethin content flower.

Saffron.—Now that the first impact of the war has been expended, the price for this article has dropped from the peak of $50 per pound to the going spot basis of $42 to $44 per pound in a quiet market last week.

Gums

Arabic. — Practically nothing has reached here from the primary market and there was no way of knowing when large quantities already bought would arrive. Naturally the market was one of strong undertones pending the solution of the arrival of such merchandise.

Asafetida.—Transport of new stocks from the primary market was expected to be slow and possible only at a substantial rise in total costs. Hence, spot quotations continued firm even though demand was not especially active.

Benzoin.—Sumatra gum was offered at 30c. to 31c. per pound in some quarters and there were suggestions that the inside might be shaded under competition. Siam gum remained strong and in low supply.

Myrrh.—Prices were firm at a minimum of 70c. per pound and while demand was not expansive, it was still fair in size and seemed likely to be maintained.

Olibanum.—While the market lacked open change, it seemed slightly more competitive in keeping with the moderate consuming interest prevailing last week.

Herbs and Leaves

Buchu.—The spot price was nominal around $1 per pound and local stocks were very low. However, it was the fag end of the consuming season and new crop will be marketed in the not distant future.

Laurel.—Quotations were off a small fraction to 6¾c. to 7¼c. per pound under competition in a dull market.

Marjoram. — French material was higher at 36c. to 37c. per pound. Tunisan lacked change. Demand was irregular.

Sage.—Presence of ample stocks led to further price shading and stemless material was priced at 10c. to 10½c. per pound, while the garden variety of the item was down to 12c to 12½c.

Stramonium. — Quotations lacked change but there seemed to be a slightly easier undertone in the market and competition was more apparent. The future of supply remained in the dark.

Miscellaneous

Ergot.—Stocks were considerably below normal and consuming requirements have not abated. Offerings from foreign sources have dried up substantially leaving the future of arrivals uncertain. Spot quotations were $3.25 to $3.75 per pound and were nearly nominal. Such arrivals as may take place have been mainly sold into consumption.

Kamala.—Sales were made at 48c. to 50c. per pound last week and the mar-

—Continued on page 74

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Essential Oils, Aromatic Chemicals

Demand for Essential Oils Flattens—Buying Pressure Much Reduced —The Development Considered Normal—Unsold Stocks Light — Far East Buying Empty Drums Here

A substantial recession in demand developed in the market for essential oils and aromatic chemicals last week. The drop was seemingly severe when compared with the very heavy buying that prevailed without interruption virtually since the outbreak of the war. The decline in sales volume, however, came to a market in which heavy selling had severely reduced stocks and hence there was no real weakening of the general position of most products.

Leveling off of quotations, however, seemed to be developing. This was another development to be expected since under the hectic demand that paid little heed to the prices of many materials got entirely out of hand. Values seemed to be approaching a more clearly defined position with sellers' views tending toward more uniformity.

An interesting development in the way of business new to this market was the rising of demand for drums to be shipped to the Far East. Scarcity of shipping containers has developed since Germany and France, formerly selling to the Far East to the exclusion of other manufacturing countries, went to war. India, Java and Ceylon were in the market and substantial shipments were already enroute to the primary markets for citronella and lemongrass oils.

Price Changes

Prices were changed during the past week as follows:—

Advanced

Cedarleaf, 25c. per lb.
Eucalyptus, 4c. per lb.
Peppermint, natural, 15c. per lb.
redistilled, 15c. per lb.

Reduced

Bergamot, 40c. per lb.
Lemon, Messina, 15c. per lb.
Orange, expressed, Florida, 5c. per lb.
Messina, 25c. per lb.
West India, 5c. per lb.
Sandalwood, 25c. per lb.

Comparative Values

Index numbers compiled from twenty typical essential oils on the basis of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
93.1	95.0	89.6	78.2

Market news that may have developed after this report was sent to press will be found on page 4.

Essential Oils

Anise.—A steady market prevailed on spot but demand has decreased considerably, leaving a market of moderate proportions that was based on firm prices.

Bergamot.—Goods were offered more liberally and frequently from the primary market but arrival of purchases was still difficult to estimate because of the upset shipping situation. Spot quotations were down to $4.10 to $4.25 per pound.

Birchtar.—Quotations were firm but lacking in further development. That condition was in line with the slower trade noted in the item.

Bois De Rose.—Costs to get goods from South America to the spot remained comparatively high because of the high war risk insurance and ocean freight rates. Spot quotations were firm but reserves seemed equal to present request.

Camphor.—Stocks were comparatively low and hence prices remained strong and practically nominal. Japanese offerings remained small and high in price.

Caraway.—Trade was moderate but sales in the recent past so reduced stocks as to make prices still very firm in all respects. Goods bought to replace spot stocks were still hampered by transport delays.

Cedarleaf.—Country prices were high and strong, resulting in spot quotations at 90c. per pound in drums and 95c. in cans being obtained steadily throughout the past week in a fairly active spot market.

Citronella. — Offerings from Ceylon have been scarce. Licenses are required to ship from Ceylon and in all instances the buyer's name must be disclosed. Prices received last week were slightly lower. Java oil was higher for shipment and sales were said to have been made to London. Scarcity of drums in the primary markets has led to purchases being made for export from this country. Most of the drums formerly used in the Far East were of German or French manufacture.

Clove.—Production has been sold well ahead and every pound coming from there is applied against business already on the books of the makers. Prices named by the makers were $1.45 to $1.50 per pound in drums and $1.50 to $1.55 in cans.

Eucalyptus.—The market was higher again, drums being quoted at 59c. to 60c. per pound and oil in cans being held at 61c. to 62c. Shipment of oil from the primary market was hampered by lack of shipping space and a not adequate supply of drums.

Grapefruit.—Ample stocks were available in Florida and prices continued favorable. On the spot, $1.85 to $1.90 per pound was the going price on the moderate trade noted last week.

Juniper.—Oil was slightly lower at $1.85 to $2 per pound, but the article was still basically firm because of the replacement situation rendered doubly difficult by inability of importers to get normal shipping accommodations. Trade was slower.

Juniper Tar.—In 1,000-pound drums, this article has sold for 60c. to 65c. per pound and oil packed in cans was quoted at 62c. to 67c. per pound, according to quantity. Stocks were low and not readily to be increased.

Lemon.—Italian oil has eased off slightly on the spot and the market was quoted $3.35 to $4 per pound, according to brand. However, with ample stocks of California oil available, demand for the Italian item was said to be quite slow.

Lemongrass.—The primary market was short of drums for shipment purposes and purchases have been made here on export account. Prices in the Far East eased slightly last week, but they were still high enough to keep spot quotations exceptionally firm.

Lime.—The market remained steady to firm notwithstanding a lowered volume of consuming request. Replacement costs justified maintenance of spot values. Reports from Mexico stated that exports in the first nine months of this year totaled 19,609 pounds, comparing with 23,936 pounds in the corresponding period of 1938.

Nutmeg.—Though lacking in further change, the prices for this article was still firm at the levels reached through successive advances. Raw material has developed a slightly easier undertone at equally slight reductions in price.

Orange.—Florida oil was quoted spot at $1.30 to $1.35 per pound with fair quantities being offered. California oil held firm but unchanged at $1.50 per pound. Italian oil was shaded to $3 to $3.75 per pound according to brand and shipment, offerings increased moderately without an equal improvement in the shipping conditions that have made for delay in arrivals.

Peppermint.—The spot market was $2.75 to $3 per pound for natural and $3 to $3.25 for redistilled oil. This was very close to replacement cost in the middlewest. Local agents for some producers said last week that there had been an increase in spot inquiries for primary market stocks.

Sandalwood.—Spot quotations eased slightly to $5.25 to $5.50 per pound for U.S.P. oil made by some makers in this market. One producer indicated that fortunately he held fairly substantial stocks of billets and hence production had not been hurt yet by the slowness of shipping from the Far East.

Sassafras.—The market was low in supply and very firm in price. In fact, values have reached such a high point that there has been an appreciable increase in business done in substitutes. One producer suggested last week that the satisfactory substitutes may at last come into their own, standing on their own feet clear and free from the influence of artificial oil of sassafras.

Spearmint.—The primary and spot markets were firm notwithstanding the lack of expansive demand from the consuming trade. Unsold stocks of the 1939 crop were said to have worked into strong hands with ability to hold for current and even higher prices. Spot stocks were moderate.

Ti Tree.—Spot goods were available at $2.50 to $3 per pound according to quantity. The stock was not large but neither was demand. It would be difficult to get any substantial quantity from the primary market.

Wormseed.—The market held firm in price but lacked activity such as prevailed in the recent past. Replacement stocks were also firmly held at the source.

Wormwood. — Spot quotations were $4.50 to $4.75 per pound, but local dealers said that stocks were on the low side and cannot be increased to any important extent. Demand was inactive.

Current prices on essential oils and aromatic chemicals are given in the alphabetical list of prices beginning on page 7

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Aromatic Chemicals

Benzaldehyde.—Demand was very good, creating firm undertones to prices and keeping competition well in check.

Benzyl Compounds.—Movement was well up to the recent volume. Buyers traded fairly well ahead of their actual needs, which, on the whole, have been and still were substantial last week.

Cinnamic Aldehyde.—Trade was rather routine in most respects. With fair reserves available locally, consumers covered little more than their immediate needs. The market was quiet, but very steady.

Citronellyl Butyrate.—Steady undertones and firm prices prevailed. Business remained at the recently very fair volume, and the outlook for sustained movement was considered good.

Diethyl Phthalate.—The call was mainly for routine quantities that in some respects suggested that buyers were in the market usually on a hand-to-mouth basis. Quotations were fully steady.

Diphenyl Methane.—Inquiries were somewhat more numerous, but actual sales volume changed very little. Quotations were steady to firm in the absence of excessive competition.

Diphenyl Oxide.—Manufacturing needs compared well with those in the recent past, and in general the market had a steady if somewhat routine appearance. Quotations were well maintained.

Ethyl Cinnamate.—More inquiry and some gain in sales were reported, creating firmer understones and eliminating any tendency toward important price competition in local circles.

Eucalyptol.—The high cost and relative scarcity of raw material, spot and for shipment, contributed a mountain of strength to the position of this derivative. The tendency was upward.

Eugenol.—Manufacturers took ample quantities of raw material at fairly high prices. Producers of the same were well sold ahead. Demand for eugenol was steady to firm and prices showed much strength.

Geranyl Acetate.—Routine request was current, but the trade was called good in volume and in excellent comparison with recent movement into consumption at very firm prices.

Heliotropine.—Stocks were closely held and were very firm. Sellers were not anxious for an expansion in trade, contenting themselves in most instances by keeping regular customers supplied.

Books You Can Use

Chemurgic Creation

Pioneers of Plenty. By Christy Borth, Cloth; 290 pages, 8¾ by 6 inches. New York: Bobbs-Merril Company. $3.

The manner in which chemistry is being put to work for the farmer, the laborer, and everyone else; to increase the farm income; overcome waste, and realize a workable economy of abundance is told in this exposition of the chemurgy movement and those pioneer "cradle-rockers" who fanned the inspirational spark into a flame of actuality. The work interestingly recounts how castor plants, milk, peanuts, pine, and soybeans, their products and waste products, have formed the basis of a host of commercial items.

Biographically treated in the volume are Dr. William Jay Hale, described as "chemistry's Dizzy Dean"; Dr. Charles H. Herty, whose work on southern slash-pine created a new industry; Francis Patrick Garvan, crusader for medical research; Dr. Leo Hendrik Baekeland, pioneer in plastics; and Dr. George Washington Carver, renowned for his wizardry with the protean peanut. Also described are the extensive investigations of the Ford organization in connection with the soybean, and the various industrial chemical groups and individuals prominent in the field.

Crude Whale Oil Up Sharply in London

London, Oct. 30, 1939

The sale of nearly 7,000 tons of whale oil to Sweden at £40 per ton—the highest price since 1924—was recently announced. The price of whale oil at the last sale was £15 per ton. The sharp increase has led to a heavy rise in the shares of concerns dealing in the commodity.

Serological laboratory will be constructed by the California State Health Department in Berkeley.

Colman-Sewell Corporation, Cleveland, tea-tree oil and imported India wax, have moved to larger quarters at 5209 Euclid avenue.

What You Can Use

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Oils

(Continued from October 30 issue)

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Alphaoxanthraquinone
Aliphatic amines, normal
Aminoazobenzenebetanaphthol
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1-Amino-2-methyl-4-paratoluidinoanthraquinone
1-Amino-4-oxyanthraquinone
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Anthraquinone oil blue
Anthraquinone oil green
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Azin dyes
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Azo oil orange
Azo oil red
Azo oil yellow
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Butylamine, normal
Diaminoanthraquinones
1:5-Diaminoanthraquinone
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Diphenylamines
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Nigrosin base N
Oil brown
Orthonitrophenylazoalphanaphthol
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Parahydroxyphenylazoalphanaphthol
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Parasheen
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Primary aromatic amines and aromatic hydroxy groups
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Triphenylmethane dyes
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Barium hydroxide
Calcium hydroxide
Carbonaceous material
Charcoal
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Decolorizing carbon
Kaolin
Fuller's earth
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Potassium hydroxide
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Removal of the free fatty acids by means of solutions of alkalies or sodium silicate followed by filtration or decantation

Dewaxing Agents for Oils

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Acetone with benzene (chilled)
Acetone, 60 percent, plus benzene, 40 percent
Alcohol
Amyl chloride
Ansol
Benzene
Bromobenzene
Butyl chloride
Carbon bisulphide
Chloroform
Dibutyl ether
Dichloroethylene
Dichloromethane
Ether
Ethyl bromide
Ethyl chlorocarbonate
Ethylene dichloride
Ethylene oxide
Furfural
Glycol diacetate
Isopropanol
Isopropyl alcohol
Isopropyl ether
Isopropyl ether with isopropanol
Methanol
Methylene chloride
Methylene chloride with acetone
Naphtha
Petroleum ether
Propane
Propylene oxide
Tetrachloroethylene
Trichloroethylene

Driers for Oils

Abietic acid
Acetonephenylhydrazone
Aliphatic ketonephenylhydrazones
Aluminum linoleate
Aluminum naphthenate
Aluminum oleate
Aluminum palmitate
Aluminum resinate
Aluminum rosinate
Aluminum salts of—
(1) Amylbenzylorthobenzoic acid, normal, secondary, or disecondary
(2) Amylnaphthoylorthobenzoic acid, secondary
(3) Amyltetrahydrobenzoyl orthobenzoic acid, secondary
(4) Amyltetrahydronaphthylorthobenzoic acid, secondary
(5) Amyltoluylorthobenzoic acid, secondary
(6) Amylxyloylorthobenzoic acid, secondary
(7) Butylbenzoylorthobenzoic acid
(8) Caprylbenzoylorthobenzoic acid
(9) Hexylbenzoylorthobenzoic acid, secondary
(10) Octylbenzoylorthobenzoic acid, secondary
(11) Octylnaphthoylorthobenzoic acid, secondary
(12) Octyltoluylorthobenzoic acid, secondary
(13) Octylxyloylorthobenzoic acid, secondary
Aluminum stearate
Aluminum tungstate
Ammonium metavanadate
Anethole
Barium salts of—
(1) Amylbenzylorthobenzoic acid, normal, secondary, or disecondary
(2) Amylnaphthoylorthobenzoic acid, secondary
(3) Amyltetrahydrobenzoyl orthobenzoic acid, secondary
(4) Amyltetrahydronaphthylorthobenzoic acid, secondary
(5) Amyltoluylorthobenzoic acid, secondary
(6) Amylxyloylorthobenzoic acid, secondary
(7) Butylbenzoylorthobenzoic acid
(8) Caprylbenzoylorthobenzoic acid
(9) Hexylbenzoylorthobenzoic acid, secondary
(10) Octylbenzoylorthobenzoic acid, secondary
(11) Octylnaphthoylorthobenzoic acid, secondary
(12) Octyltoluylorthobenzoic acid, secondary
(13) Octylxyloylorthobenzoic acid, secondary
Cadmium salts of—
(1) Amylbenzylorthobenzoic acid, normal, secondary, or disecondary
(2) Amylnaphthoylorthobenzoic acid, secondary
(3) Amyltetrahydrobenzoyl orthobenzoic acid, secondary
(4) Amyltetrahydronaphthylorthobenzoic acid, secondary
(5) Amyltoluylorthobenzoic acid, secondary
(6) Amylxyloylorthobenzoic acid, secondary
(7) Butylbenzoylorthobenzoic acid
(8) Caprylbenzoylorthobenzoic acid
(9) Hexylbenzoylorthobenzoic acid, secondary
(10) Octylbenzoylorthobenzoic acid, secondary
(11) Octylnaphthoylorthobenzoic acid, secondary
(12) Octyltoluylorthobenzoic acid, secondary
(13) Octylxyloylorthobenzoic acid, secondary
Calcium linoleate
Calcium naphthenate
Calcium resinate

(To be contniued)

Petroleum Solvents Lubricants, Fuels

One Producer Advances High-Solvency Aromatic Naphtha — Domestic White Mineral Oils Increased — Pennsylvania Crude Advanced Second Time in Three Weeks

The spotlight of the refined petroleum market was centered on white mineral oils and high-solvency, aromatic naphthas last week, when certain grades of both products were advanced. The increase in the mineral oils was not unexpected, as one major supplier made his move several weeks ago. It wasn't until last week, however, that advances by another producer stabilized the price somewhat. There was still a slight disparity in the quotations. The producer of Nos. 1 and 2 high-solvency naphthas made the advance without being equalled by other sellers.

Another highlight of the week was an advance in posted prices for all grades of Pennsylvania crude oil. This was the second increase in these prices in three weeks. The rise was occasioned by a heavy demand for refined products, with a greatly increased call for export material. The refined wax market was in good shape, but there were no available supplies of the crude scale. V. m. & p. naphthas were drawing a bit less interest from paint makers, as were thinners, but the call for rubber solvent continued at a good level. Gasoline consumption was less, and the price structure weakened a bit. Kerosene, fuel oils and lubricants were strong.

Price Changes

Prices were changed during the past week as follows:—

Advanced

Oil, white mineral, dom., tech., dms., 3c. per gal.
medicinal, dms., 3c. to 5c. per gal.
Petroleum, naphtha, high-solvency, aromatic, Nos. 1 and 2, 1c. per gal., f.o.b. Bayway, N. J.

Reduced

None

Market news that may have developed after this report was sent to press will be found on page 4.

Solvents and Diluents

Cleaners' Naphtha.—Consumers were fairly active and the price was unchanged and firm at 10½c. per gallon at New York.

Lacquer Diluent.—Activity continued to lessen last week, reflecting the quiet that prevailed in the lacquer-making trade. The tankcar price was firm at 9½c. per gallon.

Petroleum Thinners.—Paint manufacturers were sluggish in their buying last week and orders in the market were irregular and for small tonnages. Price-wise, there was no development.

Rubber Solvent.—Tire makers continued buying in good volume. Tankcar lots were sold at 9½c. per gallon.

V.M. & P. Naphtha.—Similar to thinners, interest was off last week but the price was firm at 9½c. per gallon in tankcars and 10½c. in tankwagons.

Markets at Other Centers

Chicago, Nov. 2.—With prices fairly stable again at earlier levels, after an unsuccessful attempt to advance them, petroleum solvents and diluents are in a fairly strong market position. Material is moving out to buyers on a good basis. Ruling prices in tankcar lots, except as noted, are (Tankcar prices f.o.b. Group 3 Oklahoma):—Blending naphtha, 4¾c. to 5c. per gallon; cleaners' naphtha, 6⅜c. to 6½c., tankcar; 17.5c., tankwagon; petroleum spirits, 5⅜c. to 5½c., tankcar; 16.2c., tankwagon; rubber solvent, 6⅜c. to 6½c.; lacquer diluent, 7⅜c. to 7½c.; Stoddard solvent, 5⅞c. to 6c., tankcar; 15.9c. tankwagon; v.m.&p. naphtha, 6⅜c. to 6½c., tankcar; 16.5c., tankwagon.

Tulsa, Nov. 2.—Good demand for rubber solvents although buyers are seeking concessions, but prices are firm. They continue at last week's quotations:—Cleaners' naphtha, 6⅞c. to 7c. per gallon; rubber solvent, 6⅞c. to 7c.; Stoddard, 6⅜c. to 6½c.; v.m.&p., 6⅞c. to 7c., and blending naphtha at 4⅝c. to 5c.

Lighter Fractions

Butane.—The price was strong at 2½c. to 3c. per gallon and there was an active interest in buying.

Heptane.—Conditions surrounding the market were favorable to suppliers in view of an active demand and a firm price.

Hexane.—Demand, which had been modest two weeks ago, picked up during the period under review. Material was offered at 12½c. per gallon for the normal and 14c. for the laboratory.

Pentane.—Consumers' interests was at a slightly lower level than when this material was last reviewed, but the quoted price continued firm.

Propane.—Similar to butane, there was a good call for material and prices were very strong.

Octanes.—The market continued to slacken although the price of this mixture was well-maintained.

Petrolatums and Waxes

White Mineral Oils.—Sellers who had been quoting the domestic oil at the lower range in price reported previously made their move last week and advanced quotations 3c. per gallon for the technical and 3c. to 5c. for the medicinal. Their new prices for the technical were as follows:—50-60 viscosity, 43c. per gallon; 65-75, 45c., and 80-90, 46c. The medicinal oil was sold as follows:—80-90 viscosity, 49c. per gallon; 95-105, 57c.; 125-135, 64½c.; 140-150, 68c.; 175-185, 72½c.; 200-210, 74½c.; 320-330, 80½c., and 335-345, 82c.

Petrolatum.—The undertone of the market was unchanged with a good demand in evidence. A slight scarcity of stocks stiffened prices.

Paraffin.—White crude scale was off the market and the price was purely nominal. The refined grades were also scarce and quoted prices were strong.

Chicago, Nov. 2.—The refined wax market is in good shape, with tone stable at best prices attained in the current strong period. Inquiry from buyers has continued along persistent and substantial lines. Sellers seem to have no difficulty in disposing of material. Ruling prices are:—122-124, 4.9c. to 5c. per pound; 125-127, 5.1c. to 5.15c.; 127-129, 5.35c. to 5.4c.; 130-132, 5.65c. to 5.7c.; 132-134, 5.9c. to 5.95c.

Tulsa, Nov. 2.—The market was strong for refined wax with crude scale material depleted. Export grades were scarce.

Fuels and Lubricants

Gasoline.—The local tankcar market was reported easing off with consumption gradually declining. Shading of prices was rumored.

Kerosene.—Demand was active and the price was steady or firm.

Fuel and Gas Oils.—Prices were well maintained. Burner operations were much higher last week, and consequently, there was a greater demand for heating oils. Grade C bunker fuel oil was firm and in good demand.

Lubricating Oils.—The advance in Pennsylvania crude oil strengthened the market for Pennsylvania lubricants, and this, plus the heavy call from both domestic and foreign consumers, indicated that there was a strong possibility of an advance in the near future.

Crude Oil Price Changes

Pennsylvania

Major companies advanced prices 15c. per barrel to $2.40 for Allegheny and Bradford; $2.05 for Southwest Pennsylvania Pipe Line; $1.99 for Eureka, and $1.95 for Buckeye.

Tankwagon Price Changes

Standard Oil Company of New Jersey advanced kerosene 5c. per gallon at Baltimore to 7.5c.

Markets at Other Centers

Chicago, Nov. 2.—Tone of the gasoline market is easier, with demand receding. Tankwagon structures are somewhat unsettled. Kerosene remains mostly rather slow. Heating oils are being ordered out on contract in better volume. Heavy fuels are strong, lubricants steady to firm.

GASOLINE.—Low octane motor, 4½c. to 4⅝c. per gallon; 63-66 octane motor, 4¾c. to 4⅞c.; 67-69 octane motor, 5c. to 5⅛c.; 70-72 octane motor, regular, 5¼c. to 5⅜c.; 60-62, 400 endpoint, 4½c. to 4⅝c.; 64-66, 375, 4½c. to 4¾c.; 68-70, 360, 5c. to 5⅛c.

KEROSENE.—42-44, water white, 3¾c. to 4c. per gallon; 41-43, water white, 3⅝c. to 4c.

—Continued on page 68

Mexican Party Plan Urges Retention of Seized Lands

Mexico City, Nov. 2, 1939

The Mexican Revolutionary party convention tonight approved by a big majority a second six-year plan which is aimed to forestall further attempts by American and other foreign petroleum companies from recovering their expropriated oil properties. It was further interpreted as designed to pledge the party's candidate in the July, 1940, presidential election to a "no restoration" policy. The party is a dominant factor in national politics.

The plan calls for complete nationalization of the petroleum industry; compensation, if necessary, no greater than the unrecovered part of the justified investment; no consideration of proposals calling for return of the land or allowing the foreign countries intervention in the management; a continual setting aside of a percentage of the proceeds from sales of petroleum to constitute a fund for indemnification of the expropriated companies; and a vigorous continuance of expropriation.

Petroleum Production—Motor Fuel Stocks

	Barrels	
	1939 Jan. 1-Nov. 4	1938 Jan. 1-Nov. 4
Commercial crude oil production	1,034,185,385	1,004,593,400
	Week ended Nov. 4, 1939	Week ended Nov. 5, 1938
Daily average production	3,400,625	3,229,600
	Week ended Oct. 28, 1939	Week ended Oct. 21, 1939
Estimated motor fuel stock total	72,660,000	72,122,000
Estimated finished motor fuel stock total	67,373,000	66,688,000

Aviation Gasoline Data Asked by Mines Bureau

OPD Washington Bureau November 2, 1939

A survey of the production of aviation gasoline in the United States was begun today by the Bureau of Mines as a new feature of the bureau's monthly petroleum report.

A questionnaire being sent to all gasoline refiners asks information on the grade name of aviation gasoline produced, its average octane number, average vapor pressure, production in barrels during the month, stocks on hand of finished aviation gasoline at the end of the month, and present maximum capacity for monthly production of aviation gasoline. If sufficient replies are obtained during the coming month total figures for these items will be included in the monthly report for October, and these items are expected to become a regular feature of the report in the future.

Mexican Oil Sales Office Opens in This City

Offices of "Distribuidora de Petreleos Mexicanos," which will handle sales of Mexican oil in this city, have been opened at 70 Pine street. In addition to selling Mexican petroleum products, the office will keep the Mexican government advised of local market quotations and shipping conditions and will act as purchasing agent for supplies which might be required for the Mexican oil industry.

Oil Struck in Nebraska

Bringing in of a commercially producing oil well, the first in the State, was reported November 2 by the Pawnee Royalty Company at its test drilling near Falls City, Neb. The oil was described as a light type, and the initial flow was said to be around 50 barrels a day.

Humble Oil & Refining Company has announced to its employees that a special contribution of $430,000 plus $25 to each employee who has been with company one year or more will be added this year to the employees account with the Humble annuity and thrift plan.

The State of the Petroleum Market

All Pennsylvania grades of crude oil were advanced 15c. per barrel last week.

	Nov. 3	Oct. 27	Last Year
Crude petroleum prices at well (average for ten fields) per barrel	$1.1745	$1.1595	$1.337
Gasoline prices at refineries (at four refining centers) per gallon	.053890	.053890	.05375

Current prices on petroleum and its products are given in the alphabetical list of prices beginning on page 7

SHERWOOD'S
GUARANTEED QUALITY · SHEROLATUM · ALL GRADES
The Improved Petrolatum U. S. P.
SHERWOOD PETROLEUM COMPANY, INC.
REFINERY · WARREN, PA. MAIN OFFICE · ENGLEWOOD, N. J.

NICKEL CATALYST
Also NICKEL CARBONATE - NICKEL OXIDE, Etc.
THE RUFERT CHEMICAL CO., 420 Lexington Avenue, New York, N.Y.

Highest quality
NAPHTHENIC ACID
U.S.P. and Technical WHITE OILS
CRESYLIC ACID
CALODORANT GAS ODORANT
VISCOUS OILS (extremely viscous polymerized hydrocarbons)
STANDARD OIL COMPANY OF CALIFORNIA
225 BUSH STREET, SAN FRANCISCO, CALIFORNIA 30 ROCKEFELLER PLAZA, NEW YORK, N. Y.

Outputs and Quotas

A comparison of Bureau of Mines calculations for October productions, State allowable quotas where they exist and the American Petroleum Institute's estimate for crude production for the week ended October 28 follows:—

	*B. of M. Dept. of Int. calculations.	State allowable.	Estimated output.
Oklahoma ..	424,200	424,200	†415,750
Kansas	170,600	170,600	†187,200
Texas	1,444,800	‡1,360,563	1,250,900
Louisiana ..	260,300	258,504	264,850
Arkansas ...	56,100	65,800	65,900
Mississippi ..	.....	.....	800
Illinois	275,500	.....	340,400
Eastern	99,400	.....	103,100
Michigan ...	61,000	.....	63,950
Wyoming ..	69,000	.....	62,100
Montana ...	16,500	.....	17,200
Colorado ...	3,900	.....	3,900
New Mexico.	114,200	§115,393	115,750
California ..	594,800	¶598,300	606,700
Totals	3,590,300	.....	3,498,500

* These are Bureau of Mines' calculations of the requirements of domestic crude oil based upon certain premises outlined in its detailed forecast for the month of October. As requirements may be supplied either from stocks, or from new productions contemplated withdrawals from crude oil inventories must be deducted from the Bureau's estimated requirements to determine the amount of new crude to be produced.

† Oklahoma and Kansas figures are for week ended 7 a. m., October 25.

‡ This is the net basic allowable for the month of October obtained from the best available sources and takes into consideration ordered shutdowns for 11 days during the month, namely, Oct. 1, 2, 7, 8, 14, 15, 21, 22, 27, 28 and 29. Latest information indicates that exemptions are included, but not accretions from new wells.

§ Allowable for period October 18 to 31; previous allowable revised to cover new wells completed.

¶ Recommendation of Central Committee of California Oil Producers.

Petroleum Solvents, Lubricants, Fuels

Markets at Other Centers

—Continued from page 67

FURNACE OILS.—Range oil, 3¾c. to 3¾c. per gallon; No. 1 prime white, 3⅜c. to 3⅝c.; No. 1 straw, 3¼c. to 3½c.; No. 2 straw, 3⅛c. to 3⅜c.; No. 2 dark, 3c. to 3¼c.; No. 3, 3c. to 3⅛c.; 32-36, dark, industrial gas oil, 2¾c. to 3c.

FUEL OILS.—No. 4, $1 to $1.10 per barrel; No. 5, 70c. to 80c.; No. 6, 60c. to 70c.

New Orleans, Oct. 31.—Continued steadiness has been the keynote of the domestic market during the past six weeks, with no change in quoted prices. U. S. motor gasoline was quoted at 6c. and 70-72 octane at 6⅜c.—both quotations being based on a per gallon rate at refinery.

The price of kerosene remained unchanged at 7¼c. per gallon at refinery.

Bunker C fuel oil was quoted at 90c. per barrel at terminal and 95c. per barrel delivered alongside, while industrial plants in this vicinity continued to be quoted on this grade at $1.36 per barrel, delivered alongside.

Tulsa, Nov. 4.—There is considerable interest in domestic and industrial fuels as well as in other industrial products such as lubricants, paraffin, industrial naphthas and allied products. Shipments of distillates and gas oils were at a greater scale this week.

GASOLINE.—Sloppy. Third grade low octane 4c. to 4⅝c. per gallon; 63-66 octane, 4⅝c. to 5c.; 67-69 octane, 4¾c. to 5⅛c.; 70-72 octane, 5c. to 5½c.

NATURAL GASOLINE—Easy. The 26-70 grade, 4¼c. per gallon and 18-55 at 5¼c. to 5½c.

KEROSENE.—Firm. The 41-43 gravity, 3¾c. to 4½c. per gallon and 42-44, 4c. to 4⅝c.

DISTILLATES.—Firmer. No. 1 prime white, 3⅝c. to 3⅞c.; No. 2 straw, 3¼c. to 3⅝c.; dark, 3⅛c. to 3½c., and gas oils, 2⅝c. to 2⅞c.

LUBRICANTS.—Firm, with orders coming freely into the market for future delivery. Bright stocks continue at 22c. to 26c. per gallon and neutrals, 13c. to 15½c.

FUEL OILS.—Large demand and firmness prevails. Residuals unchanged at 45c. to 70c., and 22-28 grade at 80c. to 95c. The low cold test remains at $1 to $1.10 per barrel.

Crude Oil Daily Output Down

Daily average crude oil production in the United States during the week ended October 28 was 3,498,500 barrels, a decline of 273,400 from the 3,771,900 in the preceding week, according to the American Petroleum Institute. A drop of 263,700 barrels in the daily average output of Texas was the most important change. Stocks of unfinished and finished gasoline at the end of the week were 72,660,000 barrels, a gain of 538,000 over the preceding week. A year ago these stocks amounted to 69,252,000 barrels. Finished gasoline stocks increased 685,000 barrels to 67,373,000. On October 28, 1938, the total was 63,493,000 barrels.

Petroleum Resins

Interest is spreading in respect of petroleum as a source of materials already applied or potentially adapted to the further development of the rapidly growing plastics industry. Some petroleum derivations are themselves resinous; some are readily converted to resinoids; and there an entirely new channel is opened for synthetic organic chemicals by the production of phenolic compounds, such as cresylic acid, from petroleum. There is, therefore, timely information in certain papers presented before the American Chemical Society recently.

Petroleum has broken the monopoly of coal in the manufacture of resins and plastics used in synthetic products, according to Dr. Per K. Frolich, director of the chemical laboratories of the Standard Oil Development Company, in a report as chairman of the society's division of petroleum chemistry. Ability to furnish raw materials in large volume and at low cost has been the prime factor in the advance of the petroleum industry in this field, he said.

The successful manufacture of synthetic rubbers, which in certain respects are superior to the natural product, is probably the most startling recent development in this general sphere, Dr. Frolich declared, and a synthetic product now made commercially is reported to give automobile tires a greatly increased wear resistance. The latest development with which the chemical industry is now busy is that of converting some of the synthetic resins and plastic materials into fibers suitable for the manufacture of threads, knitted articles, and woven fabrics of superior strength and wearing quality. Products are being manufactured synthetically today that are superior to rubber for use in gasoline and fuel-oil dispensing hose because of their resistance to the solvent action of these materials. Certain of these products likewise find an increasing use in all kinds of industrial equipment because of their resistance to solvents and other chemicals.

Polystyrene "Jewels"

Archie J. Weith, Victor H. Turkington, and Ivey Allen, jr., of the Bakelite Corporation, before a symposium on "Plastics and Resins from Hydrocarbons," gave data on jewels, found not in nature's laboratories but derived from by-products of petroleum or natural gas. It takes only a few seconds to mold a dozen or two gems—"rubies," "amethysts," "aquamarines"—from polystyrene; a "new-old" plastic material. It is new because only recently has polystyrene been made commercially available. It's old because it is one of the first synthetic resinous materials, having been discovered about a hundred years ago. Within a few seconds polystyrene can be transformed, by molding, into objects having all the beauty of fine cut crystal. Being naturally crystal clear the powder can be colored in any hue, or may be made transparent, translucent, or apaque.

The operation which transforms the powder into the finished object, which may be almost anything from an acid bottle cap to a rosary is called injection molding. The powder is heated and softened in a torpedo-shaped cylinder and then forced by means of a piston at enormous pressure into the cavity of a mold. The hot semiliquid plastic fills the mold cavity, then cools and hardens. The mold is opened, the hard, tough molded object drops out, then the mold closes again, and the whole process is repeated. Each step is automatic, and when the machine is working properly, it is only necessary to see that it always has a good supply of molding powder in order to keep it turning out pocket combs, costume jewelry, television coil forms, or liquor pourers regularly twenty-four hours a day.

The requirements for a satisfactory molding powder for such a process are severe. It must withstand high temperatures without decomposition and soften enough to fill out all the details of the mold cavity. Then it must harden quickly on cooling and must not lose its shape on standing at room temperature. Polystyrene meets all these requirements admirably, and in addition, it is highly resistant to chemicals, such as strong acids and alkalies, and is one of the best electrical insulators known.

Recent work on the control of the styrene reactions has now made practical the production of styrene resins, which are readily soluble in drying oils, to produce oleoresinous varnishes. These varnishes have exceptional elasticity, pliability, resistance to moisture and alkalies, and good color stability. They are outstanding in electrical properties, making them very useful for insulating purposes. The two properties of high resistance to moisture absorption and moisture permeability are very necessary for such important uses as fabric and cloth coatings, waterproof sandpaper, tapes for electrical insulation, and coatings for transparent cellulose films, commonly used for packaging foods, tobacco and other perishable and semiperishable products.

The wide range of applications of polystyrene and its peculiar usefulness as an injection molding material certainly will mean that sources for large amounts of the raw material, monomeric styrene, will be sought. Fortunately, several potential sources for very large amounts of material are available.

Styrene can be made synthetically through the stage of ethylbenzene and is also available as a condensation product in gas mains. Ethylbenzene has been found in certain types of petroleum and may also be available from coaltar distillates. Styrene may also be formed as a cracking product of certain gaseous hydrocarbons available from petroleum and natural gas. As the commercial importance of polystyrene as a plastic and as a resin for the formulation of coating materials continues to grow, the by-products from which it is made will assume new significance to the natural gas and petroleum industries.

Propane Precipitation of Petroleum Resins

P. T. Graff and H. O. Forrest, of the M. W. Kellogg Company, in the same symposium reported that liquid propane, a condensed liquid hydrocarbon obtained from either oil field or refinery gases, may be used to precipitate heavy portions of crude petroleum. Preliminary refinery operations separate crude oil into light products, heavy oils, and residuum. The heavy oils, such as those used for motor base stock, and the residuum contain asphalt and tarlike substances. They also contain high-molecular weight, viscous, tacky substances called resins.

The heavy oils or residue are dissolved in liquid propane, and at temperatures between 100° and 120° F. the asphalt settles out of solution and at temperatures of 150° to 180° F. the resins settle out of solution. The asphalt products from propane precipitation resemble the asphalts produced by the usual distillation processes except that they are freer of oil portions of the crude. The resins precipitated out of propane solution may be high in specific gravity and extremely viscous.

These propane-precipitated resins contain color bodies, high-molecular weight naphthenic and aromatic bodies, and substances which are ordinarily treated out of oils to produce purified high-grade lubricating oils. However, in the case of propane precipitation of resins from highly paraffinic stocks such as the heavy oils from Pennsylvania crude, the propane-precipitated resins contain color bodies, some impurities, and very viscous oils.

More than one step of resin settling in propane solution fractionates these oils into products of several grades of viscosity, and the heaviest material contains the color bodies and undesirable constituents while the lighter precipitated fractions will consist of heavy oils of varying viscosity.

Because moderate temperatures are used in this process, the hydrocarbons undergo no transformation, such as from "cracking," and therefore the resins or heavy oils are unchanged fundamentally from their original state as they existed in the crude oil. The heavy oils from high-grade crudes make good gear lubricants. The more resinous materials are stable against heat and are acid resistant, and may be used for insulating or waterproofing compounds.

The process has been studied by many investigators in previous years and has been applied commercially by oil refiners. The principal reason for the application of propane deresining has been for the purification of lubricating oil base stocks, but it has been found that the narrow fractions of resins have properties which suit them to industrial uses. It has been known that petroleum contains these resin materials, but it is only recently that this refining method has made larger quantities of the resins available to industry.

Petroleum Phenolics

Edward Field, Fred H. Dempster, and George E. Tilson, of the Standard Oil Company of California, before the division of petroleum chemistry, discussed the opening of the way to produce phenolic compounds from petroleum fractions on a very large scale in this country, making domestic supplies more easily available. The science of chemistry has once more demonstrated its never-ending search for new materials for the benefit of mankind, and petroleum has again yielded more new products to be added to the long list already established.

Phenols from petroleum are finding extensive use in a variety of industrial applications. As germicides, fungicides, and disinfectants they are proving at least the equal of well-known products now on the market, at the same time their application is being extended to insecticides for the control of tree pests.

For all these uses, phenolic compounds are prepared in water-soluble form, and their solutions may be diluted as required before application. Products of this type meet the rigid requirements of the Bureau of Animal Industry of the United States Department of Agriculture. Another important use for these phenolic products from petroleum is as flotation agents in the mining industry, and there is every possibility that they will be very valuable in the manufacture of various synthetic plastics.

Until recently, disinfectants of the carbolic acid type which contain chemical compounds known as phenols were obtained directly from the distillation products of coaltar. Now, a new source of these compounds has been made available from petroleum.

The present study represents a thorough investigation of these particular compounds from petroleum fractions and definitely establishes their chemical identity by analytical methods, comparison being made at every stage of the research work with phenolic compounds or cresylic acids of regular commercial grade from coaltar.

It has been demonstrated by the research workers that not only have phenolic compounds from petroleum proved to be at least the equal of phenols from coaltar sources in their general properties and chemical reations, but some of them prove superior when tested by such well known biological tests as the F.D.A. phenol coefficient test for germ-killing power. This particular test is of considerable importance in the evaluation of antiseptics, germicides, and fungicides, since it measures the efficiency of the sample under examination to kill actual typhoid germs by comparison with pure carbolic acid which is used as the standard.

These newly developed phenolic compounds are usually obtained from petroleum fractions which have been made by cracking processes; the phenols are extracted by means of aqueous caustic soda solution, which extract is then neutralized with acid causing the crude phenols to rise to the top. This crude product is then separated and purified.

Brazil to Produce Gasoline In Three Government Plan

Rio de Janeiro, Nov. 1, 1939

Nationalization of Brazilian industry was further progressed today when the government revealed plans for the erection of three plants for the production of gasoline. The first plant, already contracted for, will be erected at Nictheroy, at a cost estimated at $2,600,000, and will be completed early in 1941. Its capacity will be about 5,000 barrels daily of crude oil, and it is expected to produce 120,000,000 liters yearly of high-grade gasoline, in addition to kerosene, diesel and fuel oils.

The plant will use the Dobbs cracking process, owned by the Universal Oil Products Company, Chicago, under rights purchased by the government. Crude oil will be imported until such a time as oil is found in Bahia, where drilling is now in process. Government backers of the project contend that it will not hurt American business since little gasoline comes to Brazil from the United States.

J. E. Jones, of Parkersburg, has been elected president of the West Virginia Petroleum Association.

Fertilizer Materials

Trading *in* Raw Materials Dull Except in Midwest—Bone Meal Advanced, Blood and Sardine Meal Lowered—Domestic Sulphate of Potash Production Planned

Trading in raw fertilizer materials was quiet in most sections of the country last week but a brief buying activity continued in the Midwest. Mixers seemed to be well stocked up and therefore were showing little interest in most materials. One exception was bone, the domestic and imported steamed meal both being in better demand at higher prices. Blood was firm in Chicago, but was reduced in New York. Fish scrap producers reported that the output to date was satisfactory but it was doubtful whether or not they could meet all their commitments. Japanese sardine meal was reduced.

The sulphate of ammonia situation continued tight and shipments could not be made on new orders until late next month or early in 1940. There was an extreme scarcity of sulphate of potash due to the fact that the only source of this material at present is Europe. Plans to mine sulphur in this country have been formulated by a major fertilizer concern and material is expected to be available for next season. There is also a scarcity of superphosphate, although producers are well able to take care of previous contracts. New orders in the market, however, are not taken readily and prospective buyers find it hard to obtain supplies.

The general market on the Pacific Coast was very dull, the only interest being in the deliveries of chemicals on previously-made contracts. Notable was sulphate of ammonia, no further supplies of which are available to consumers for immediate delivery. Fish meal was being offered at a higher figure than that quoted the previous week, but the majority of other organics were easing. Blood meal and bone meal were both lowered.

Price Changes

Prices were changed during the past week as follows:—

Advanced

Bone meal, steamed, dom., $1 to $2 per ton, f.o.b. Chi.
Imp., steamed, $1.50 per ton.
Fish scrap, meal, $1 per ton, f.o.b. San Francisco

Reduced

Blood, dried, dom., 10c. per unit, f.o.b. N. Y.
30c. per ton, f.o.b. Los Angeles.
Bone, dom., meal, $1 per ton, divd., f.o.b. Pac. Cst.
Fish scrap, sardine meal, Japanese, spot, $1 per ton.

Comparative Values

Index numbers compiled from four typical fertilizer materials on the basis of 100 for August 1, 1914, compare as follows:—

Last week.	Prev. week.	Last month.	Last year.
66.3	66.3	66.3	66.3

Market news that may have developed after this report was sent to press will be found on page 4.

Nitrogenates

Castor Pomace.—The domestic and the imported product both continued firm and unchanged at $17.50 and $20 per ton, respectively. Reports in the trade were to the effect that shipments from abroad have been coming to this country in larger volume in recent months, especially from Russia.

Dried Blood.—The New York market was weaker during the past week, material being offered at $3.60 per unit-ton, a 10c, reduction from the previous quotation. The Chicago and the imported markets were unchanged with interest light.

Fish Scrap.—Production was at a satisfactory level but major producers were still uncertain whether or not they could meet all their commitments. A few resales of scrap were reported at the quoted price of $4.25 and 10c. per unit. Menhaden meal was held at $58 per ton. Spot price of imported material was reduced $1 to $53 per ton.

Nitrate of Soda.—Shipments were lighter, the majority of mixers already having their supplies. The price was steady and unchanged.

Sulphate of Ammonia.—The price for shipment this month continued at $27.50 per ton, but it was doubtful if any new orders would be accepted due to a slight scarcity of stocks.

Tankage.—Quotations continued unchanged but there were signs of easiness in the market for all grades. Feeders were showing a bit of interest but the fertilizer trade was sluggish.

Potashes

Ample supplies of muriate, manure salts and kainit were available but several quarters reported that stocks of sulphate of potash were very low during the period under review. On top of this the possibilities of obtaining further supplies in the near future are not very bright. All prices were firm. Cottonseed hull ash continued firm at $1.10 per unit, but the demand was off.

Phosphates

Bone Materials.—Steamed bone meal, 3 and 50 percent, was $1 to $2 per ton higher, producers asking $30 last week. The imported bone meal was also up, sales being made during the period at $28.50 per ton, c.i.f. ports, a $1.50 advance. Both feeders and fertilizer buyers were fairly active in the bone products market.

Superphosphate. — The price continued firm for both the regular and the fine grades. Production in September totaled 273,378 tons, compared with 238,943 in September, 1938. Total shipments were 351,057 in September, against 334,084 in the corresponding month last year. End-of-month stocks were 1,151,976 and 1,295,213. All figures include those of base and mixed goods as well as bulk material.

Sulphur and Pyrites

Interest in sulphur offerings was beginning to lag a bit last week, an indication that consumers were fairly well stocked. Canadian pyrites suffered a slackening demand but all prices were firm.

Markets at Other Centers

Atlanta, Nov. 1.—A fairly steady demand for some fertilizer materials is reported. Cottonseed meal is stronger. A foreign demand for sulphate of ammonia at higher than domestic prices is reported, but very little has been found available since production has been very well covered with domestic contracts. Quotations on leading materials of this market are as follows:—

SUPERPHOSPHATE.—52 cents per unit, interior producing points.

NITRATE OF SODA.—$27 per ton, port basis.

SULPHATE OF AMMONIA.—$27.75 per ton, port basis.

COTTONSEED MEAL.—8 percent grade, $26.50 per ton, southeastern mills.

BLOOD.—$3.60 per unit, basis Chicago; imported, $3.35, ports.

TANKAGE.—Fertilizer grade, $3.25 and 10c., basis Chicago.

BONE.—Bone meal 4½ and 50 at $32 per ton, basis Chicago; steam bone meal 3 and 50 at $30, basis Chicago.

Baltimore, Nov. 1.—Business in crude fertilizer materials continues cautious, with the buying hesitant. Prevailing quotations are about as follows:—

FISH SCRAP.—There are no offerings of material for shipment, the only stocks available being for resale at $4.25 and 10 per unit-ton, f.o.b. factory. North Carolina scrap is offered at $50 per ton for spot. Menhaden meal is held at $58 per ton, f.o.b. Baltimore, with Japanese sardine meal at $54 to $55 for spot.

TANKAGE.—The market is quiet, with 9 and 10 supplies unground held at $3.25 and 10c. per unit-ton for domestic, and with South American supplies at $4 and 10c. per unit-ton, c.i.f.

DRIED BLOOD.—The market is easy, with domestic stocks quoted at $3.60 per unit-ton, f.o.b. shipping point, and with South American offerings at $3.35.

SUPERPHOSPHATE. — The producers continue to take care of contracts for this material at $11 per ton for run-of-pile, with 16 percent supplies at $8.50 per ton. Buyers not secured by contract find it hard to secure supplies for there is reported to be a scarcity of free material and producers maintain that they have little or no excess over their commitments.

BONE.—Figures are firm. The 1 and 60 bone flour is at $25 per ton, 3 and 50 ground steamed at $30 per ton, and 4½ and 50 ground raw material at $30 to $32.

—Continued on page 70

Current prices on fertilizer materials are given in the alphabetical list of prices beginning on page 7

Fertilizer Exports Controlled Under New Canadian Order

Under a Canadian order licenses will be withheld, until further notice, for the exportation from Canada of fertilizers of every kind and every analysis, except calcium cyanamide, unless recommended by the Minister of Agriculture, in order to maintain adequate supplies of chemical fertilizers for field and garden crop production in Canada during the war, according to the *Canada Gazette*, Ottawa.

AAA Studying Superphosphate Bids on 70,000 Tons

Agricultural Adjustment Administration is studying bids submitted on 70,000 tons of concentrated superphosphate. Eight bids were received which totaled 61,600 tons. Bids ranged from 57 cents a unit bulk in Florida to 73 cents a unit bulk at Baltimore. Bagged bids were quoted 5 to 7 cents a unit higher.

Colombia to Sell Fertilizers

Fertilizer distribution by the government has been proposed in a bill introduced in the Colombian House of Representatives, under which a revolving fund of 2,000,000 pesos would be set up for the use of the government to purchase fertilizers by contracting directly with manufacturers without recourse to the provisions of the fiscal code.

Paul & Co. Reorganizes Its Export Department

Edward P. Paul & Co., this city, importer and exporter since 1898, has reorganized its export department and will undertake specialization in the exportation of drugs, chemicals, oils, and waxes.

Two divisions have been formed. F. W. Manasek, for fifteen years in the export department of S. B. Penick & Co., botanical drugs, this city, has been placed in charge of business in foreign and domestic drugs, and Albert A. Arditti, connected with the Paul organization since 1915, will oversee the activities in chemicals and oils. While emphasis will at present be placed on export business, it is planned eventually to expand the firm's activities to include importation of the above mentioned materials.

Potash Salts to Be Made By Internat'l Agriculture

International Agricultural Corporation, this city, and its subsidiary, the Union Potash & Chemical Company, have completed plans for the mining of agricultural potash salts near Carlsbad, N. M., Louis Ware, president of International Agriculture, disclosed last week. Operations have already started and material is expected to be ready for delivery by the middle of next Summer.

By use of advanced metallurgical processes it is estimated that approximately 70,000 tons of 60 percent muriate of potash and an equal tonnage of potassium sulphate will be produced each year. This will mark the first time that potassium sulphate has been mined directly from domestic ore in any appreciable quantity. Following the last World War, means were devised for extracting potash from brine lakes, and one company has been in production in California since that time.

Approximately $2,500,000 will be spent on the project, and Mr. Ware reveals that International Agriculture has sold $1,208,000 of its first mortgage and collateral trust 5 percent bonds, which has been held in its treasury, to the New York Trust Company on an interest basis of 3½ percent annually. These funds will be used as an additional investment in Union Potash & Chemical to complete that company's financing and mining program and to enable it to begin immediate operations.

New England Paint & Oil Club will hold a meeting November 9 in the Parker house, Boston.

Inquiries Invited

from Eastern Manufacturers seeking energetic sales representation in British Columbia and Alberta. Address correspondence to 145 Galley Avenue, Toronto, or

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Fertilizer Materials

—Continued from page 69

Markets at Other Centers

Chicago, Nov. 1.—A somewhat better tone has developed in the general fertilizer market tone, and as a result the down-trend recently noted in prices seems to have been checked. Trade is of a fairly extensive nature. Blood is reported in fairly good call. Tankage business seems to be along good lines. Bone materials have been dull, but now are holding their own.

BLOOD.—Principal grade, $3.60 per unit of ammonia.

TANKAGE.—High grade, feeding, $3.75 to $3.80 and 10c.; hoof meal, $3.10 to $3.15; liquid stick, $2 to $2.50.

BONE MATERIALS—Ground, steamed bone, 1¼ and 60 percent, $25; 3 and 50 percent, $30; 4½ and 50 percent, $30 to $32; grinding hoofs, pigs' toes and waste horn materials, $40 to $45; cattle jaws, skulls and knuckles, $25 to $27; beef cracklings, soft pressed, $45 to $50; pork cracklings, soft pressed, $55 to $60; hard pressed cracklings, per unit of protein, 85c. to 90c.

SAN FRANCISCO, Nov. 1.—There is barely a show of business in the general fertilizers markets right now, excepting for the rush of deliveries which is taking place on chemicals, notably sulphate of ammonia. Business throughout the whole trading area has quieted down, buyers having come into the picture some weeks back and purchased rather heavily against the chance of stiff conditions due to the war. No further lots of sulphate of ammonia have been reported to have been available from first hands and none is offered by the manufacturers' agents. Prices in the market are in almost a strictly nominal position today. Fish meal is higher. Ruling prices are:—

SULPHATE OF AMMONIA.—Sellers have withdrawn from the market.

SUPERPHOSPHATE.—Domestic, quoted at 75c. per unit in bulk, f.o.b. producer's plant, San Francisco Bay. Bags, quoted at 85c. per unit. Foreign material nominal.

NITRATE OF SODA.—100-pound bags, $29 per ton ex-vessel or warehouse; 200-pound bags, $28.30 per ton ex-vessel or warehouse.

AMMONIA PHOSPHATE.—Eleven percent N. and 48 percent P.A. material is quoted at $54 per ton cars, ports, and $1 per ton extra for delivery inland. Sixteen and 20 percent material, quoted at $43 per ton ports, and $44 per ton inland, subject to confirmation.

FISH MEAL.—California sardine meal, f.a.q., is quoted on the basis of $49 to $50 per ton, f.o.b. production points, San Francisco/Monterey for nearby or prompt shipment.

TANKAGE.—Unground, fertilizer grade, wet rendered, domestic, quoted at $4 and 10c. per unit-ton, nominally, f.o.b. cars, South San Francisco. Dry rendered, ground, quoted at $60 per ton, f.o.b. cars, South San Francisco; unground, dry rendered, quoted at 95c. per unit of protein, f.o.b. cars, South San Francisco.

BLOOD MEAL—Domestic is quoted at $3.50 per unit, f.o.b. cars, Los Angeles.

BONE MEAL.—Bone meal, depending upon quality and seller, is quoted at from $29 to $34 per ton, delivered Pacific Coast ports.

Hirsch Pharmacal Company, this city, has filed certificate of voluntary dissolution in the office of the secretary of sate.

A.O.A.C. Takes Action To Define Superphosphate

—Continued from page 3

years, will be revised and published early in 1940, and because the existing edition has been exhausted for many months the new revision will be printed in larger quantities than heretofore. Because the revision is in its final stages the convention this year took final action on an unusually large number of testing methods, and the new edition will cover many subjects for which official methods of analysis have not existed in the past.

New Law Discussed

The convention opened with the usual Harvey W. Wiley memorial address, the tenth in the series, and the speaker was Dr. Paul B. Dunbar, assistant chief of the United States Food and Drug Administration, who spoke on the topic "A New Law Brings New Problems." He sketched the history of food and drug legislation and particularly the legislative course of the food, drug, and cosmetic act, and gave a detailed summary of the important provisions of the new law and the work so far accomplished under it. Particular attention is now being given, Dr. Dunbar said, to slack-filled packages, certification of coaltar colors, and the formulation of food standards.

Dr. Dunbar pointed out that the new law calls for the formulation of many new standards and methods of analysis, many of which are not chemical in their nature, and he recommended that the association employ a number of chemists and other analytical experts on a part-time basis to advise and assist the voluntary referees in developing new methods in order that the association's methods may be of greater value in legal proceedings. This suggestion, however, was not acted upon by the association.

The annual address of the president was delivered by W. S. Frisbie, who sketched the early history and growth of the association, pointing out its limited field when it was organized in contrast with the present wide application of chemical and related methods of testing articles of commerce. He declared that the association's methods have a unique reputation for accuracy and are widely recognized in State and Federal laws and in some foreign countries and are generally accepted by the courts. This, he said, is a challenge to young chemists to maintain the standards and enlarge the scope of the association's work.

New Studies Planned

A large number of new subjects were added to the association's schedule for study during the coming year. A special committee was appointed to recommend a policy on the formulation of standards for laboratory glassware to apply to methods of testing all types of products. Special studies were ordered on bacteriological methods, uniform procedures with relation to control of moisture in testing, radio-active materials, and the fineness of grinding fertilizer for analysis. Another committee was directed to study methods for detecting the presence of coaltar dyes, and it was agreed that the association should adopt the designations for certified dyes used by the Food and Drug Administration.

The drug section was divided into four parts for future meetings, with special divisions dealing with synthetic drugs, vegetable drugs and derivatives, drug bioassays, and miscellaneous drugs.

A whole new section of the association was created to deal with cosmetics. This to have five divisions as follows:—(1) Hair preparations—tonics, bleaches, shampoos, wave lotions; (2) colored make-up preparations—hair dyes, lipsticks, rouges, eyebrow and eyelash preparations; (3) facial preparations—powders, creams, lotions, shaving preparations; (4) dentrifices and mouthwashes; (5) miscellaneous cosmetics—depilatories, antiwrinkle preparations, wart, mole, and corn removers.

Among the large number of new methods approved for inclusion in the new edition of the book, either as tentative, first official action, or final official action, are the following:—

Official final action: — Micro-chemical tests for thirty alkaloids and eighteen synthetics; acetanilide and caffeine; acetanilide, caffeine, and quinine; acetanilide, caffeine, quinine, and morphine; acetanilide and sodium; aloin; antipyrine and caffeine; apomorphine in tablets; barbital and phenobarbital; cocaine; dinitrophenol and its sodium compounds; emetine hydrochloride in tablets; ether; homatropine in tablets; iodoform and iodoform gauze; menthol; morphine in syrups; phenolsulphonates; thymol in antiseptics; santonin in mixtures; phenol coefficient; methods for standardizing acid solutions with borax, acid solutions with sodium carbonate, sodium hydroxide solutions, and potassium permanganate solutions.

Advanced from tentative to first official:—Calomel in calomel ointment; hypophosphates in syrup; monobromated camphor; salicylic acid in presence of other phenols; tetrachloroethylene in mixtures; pyrethrin in pyrethrum powder; rotenone in derris and cube powder; ether extract of cube powder.

Adopted as tentative:—Acetophenetidin, acetylsalicylic acid, and salol; elixir of terpin hydrate and codeine; nicotinic acid; procaine.

New subjects for study next year:—Aminopyrine, acetophenetidin, and caffeine; ethyl aminobenzoate; quinine ethylcarbonate; sulphapyridin; theobromine and phenobarbital; magnesium trisilicate; mercury ointments; methylene blue; emulsions; compound ointment of benzoic acid; elixir of three bromides; vitamins C and A.

Terminal Chemists, Inc., this city, has filed a certificate of voluntary dissolution in the office of the secretary of state.

Asphalt Institute's field office for district 8 has been established in Austin, Tex. D. D. Williamson, formerly head of the Texas State Highway Department Laboratories, continues in charge as district engineer.

Extensive mining and refining operations near Carlsbad, New Mexico, provide this nation's fertilizer mixers with a dependable, prompt source of supply for P.C.A. Red Muriate.
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ATLANTA, GEORGIA

Foreign Trade Rules

Information recently published by the Department of Commerce on foreign tariff and related trade regulations include the following:—

Acetone:—Denmark has made the importation of acetone subject to import permit.

Alkalic Esters:—A presidential resolution includes alkalic esters of phthalic acid within the section of the raw materials schedule of the Uruguayan tariff, to be dutiable at 25 percent, plus a surtax of 21 percent of the c.i.f. Montevideo value.

Calcium Carbide:—Chile has increased the annual quota on imports of calcium carbide from 1,200 to 3,600 metric tons annually.

Finnish Imports:—Imports of all merchandise into Finland, for which import licenses are already required under previous regulations, have been made subject to exchange control.

French Transshipments:—As a general exception to French import and export restrictions, transshipment in French ports of goods from allied or neutral countries or from French colonies, intended for another French port or for allied or neutral countries or French colonies have been authorized until further notice.

Heroin:—A recent decree in Colombia prohibits the importation and production of heroin and products containing this drug after January 1, 1940.

Gasoline:—Finland has increased the import duty on gasoline from 1.80 marks to 2.50 marks per net kilo.

Jamaican Imports:—An order by the Jamaican government amends the import licensing requirements previously in force, so that no final arrangements, except under license, may now be made for the purchase abroad or for importation of any products into Jamaica from any foreign country.

Kerosene:—Denmark has restricted the importation of kerosene to import permit.

Matches.—The importation, manufacture and sale of matches containing white phosphorous in Egypt has been prohibited.

Nickel Salts.—British Board of Trade has prohibited the export from the United Kingdom, except under license, to all foreign destinations in Europe or on the Mediterranean or Black Sea, except France or any French Colony or Protectorate, of nickel oxide, nickel sulphate, nickel ammonium sulphate, selenium and selenium compounds.

Pharmaceutical Preparations: — A resolution, issued by the Argentine National Department of Health, provides that all medicinal specialties presented to that department for registration and approval for public sale may not carry any therapeutic indication on their labels, packages, prospectuses, etc. Only the pharmaco-dynamic action of the product may be shown.

Potash.—Palestine has added potash to its list of products subject to export license control.

Salt:—The importation into Belgium of crude and coarse ground salt has been made subject to import permit requirements.

Soda Nitrite:—The Minister of Health of the United Kingdom has issued regulations permitting the presence of added sodium or potassium nitrite in bacon, ham, and cooked pickled meats, both domestic and imported, provided in proportions not in excess of 200 parts per million calculated as sodium nitrite.

South African Imports:—The Governor-General-in-Council of the Union of South Africa has proclaimed national emergency regulations creating a National Supplies Control Board, with authority to make recommendations to the Minister of Commerce and Industries for the establishment of license requirements on imports and exports of any specified goods.

Sulphur, Refined:—Belgian Congo has reduced the import duty on refined sulphur to 5 percent ad valorem.

Whale Oil:—The exportation of whale oil from Iceland has been made subject to license

Shipping Information

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Imports at U.S. Ports

New York Imports

ACID, STEARIC—125 bgs, M J Corbett & Co, Rotterdam
125 bgs, 25 cs, M W Parsons Import & Plymouth Organic, Rotterdam
AGAR AGAR—20 bls, Consumers Import Co, Kobe
20 bls, Mitsui & Co, Kobe
10 bls, Yokohama.
ALBUMEN, EGG, HEN—168 cs, Mitsubishi-Shoji-Kaisha, Shanghai
ALOE—70 cs, Selma Mercantile Corp, Curacao
11 cs, R Desvernine, Curacao
ALUMINUM FOIL—5 cs, J Lackow Co, Kobe
AMMONIA, SULPHATE—200 bgs, Synthetic Nitrogen Prod Co, Oslo
AMYLENE—1 cs, Draeger Shipping Co, Rotterdam
ANISE—118 bgs, Vera Cruz
STAR—120 pkgs, Brown Bros, Harriman Co, Otaru
ANTIMONY, ORE—1,500 bgs, Talcahuano
4,415 bgs, Cookson Lead & Antimonio Co, Progreso
55 bgs, Arica
2,386 bgs, Antofagasta
200 bgs, Callao
ARSENIC—92 bbls, American Smelting & Refg Co, Tampico
RED—350 dms, American Cyanamid & Chem Co, Antwerp
WHITE—50 dms, Industrial Sales Corp, Antwerp
ARTIST'S MATERIAL — 7 cs, Gallagher & Ascher, Rotterdam
ASPHALT—359 bgs, M Cortada, Havana
BEEF LIVER EXTRACT—8 kgs, Lederle Lab, Havana
BETAMETHYLNAPHTHALENE—1 cs, Charles Hardy, Rotterdam
BISMUTH, REFD—150 bxs, Cerro de Pasco Copper Co, Callao
BLUE, BERLIN—10 bbls, Fezandie & Sperrle, Rotterdam
BONE MEAL—2,191 bgs, H J Baker & Bros, Buenos Aires
1,092 bgs, National City Bank, Buenos Aires
BRISTLES—7 cs, Atlantic Forwarding Co, Rotterdam
200 cs, Bank of London-South America, Shanghai
50 cs, Corn Exchange Bank Trust Co, Shanghai
20 cs, Public National Bank, Shanghai
110 cs, Mitsubishi-Shoji-Kaisha, Dairen
2 cs, Kobe
45 cs, National City Bank, Tientsin
50 cs, Tientsin
20 cs, Guaranty Trust Co, Bombay
CADMIUM—50 cs, Mercantile Metal & Ore Corp, Antwerp
CALCIUM, CHLORIDE—1 cs, Draeger Shipping Co, Rotterdam
CANARY SEED—1,295 bgs, Buenos Aires
198 bgs, Santos
827 bgs, Buenos Aires
814 bgs, A G Dunn, Buenos Aires
505 bgs, A G Dunn, Buenos Aires
840 bgs, Buenos Aires
CARBON DECOLORIZING—160 bgs, 20 cks, R W Greeff & Co, Rotterdam
CARDAMOM—5 hhd cs, S B Penick & Co, Bombay
3 dms, 1 cs, A Champon, Puerto Barrios
CASEIN—400 bgs, Cheese Import Co, Rotterdam
834 bgs, T M Duche & Sons, Buenos Aires
417 bgs, American Cyanamid & Chem Co, Buenos Aires
1,001 bgs, A Hurst & Co, Buenos Aires
834 bgs, Balfour, Guthrie & Co, Buenos Aires
464 bgs, A Hurst Co, Buenos Aires
3,917 bgs, American British Chem Supplies, Buenos Aires
1,084 bgs, Atterbury Bros, Buenos Aires
417 bgs, T M Duche & Sons, Buenos Aires
6,160 bgs, American British Chem Supplies, Buenos Aires
834 bgs, T M Duche & Sons, Buenos Aires
1,668 bgs, A Hurst & Co, Buenos Aires
667 bgs, American British Chem Supplies, Antwerp
834 bgs, A Hurst & Co, Buenos Aires
250 bgs, T M Duche & Sons, Buenos Aires
CASSIA BARK—88 bgs, French American Banking Corp, Haiphong
CASTOR BEANS—3,400 bgs, Baker Castor Oil Co, Pernambuco
1,700 bgs, Pernambuco
8,937 bgs, Baker Castor Co, Santos
6,000 bgs, Baker Castor Co, Rio de Janeiro
850 bgs, Bahia
1,700 bgs, National City Bank, Bahia
1,667 bgs, Guaranty Trust Co, Bahia
1,000 bgs, Baker Castor Oil Co, Bahia
CELERY SEED—145 bgs, Corn Exchange Bank Trust Co, Marseilles
175 bgs, O Gerdan Co, Bombay
344 bgs, G T German, Bombay
52 bgs, Jewitt & Sherman, Bombay
260 bgs, Bombay
CHARCOAL—125 bgs, H S Head, Rotterdam
CHEMICALS—50 bbls, Mercantile Import & Export Co, Rotterdam
139 bgs, 30 bbls, F H Taussig, Rotterdam
25 bbls, E M Sergeant Pulp & Chem Co, Rotterdam
7 cs, O D O'Neill, Buenos Aires
80 cs, 4 dms, Michel Export Co, Rotterdam
1 cs, Draeger Shipping Co, Rotterdam
100 bgs, Hummel Chem Co, Rotterdam
10 cks, Advance Solvents & Chem Co, Rotterdam
300 dms, Atlantic Forwarding Co, Rotterdam
20 cks, 80 dms, American Cyanamid & Chem Co, Antwerp
620 cks, 5,313 bgs, Advance Solvents & Chem Co, Rotterdam
8 cs, Ore & Chem Corp, Rotterdam
1 pkg, K Carriers, Rotterdam
3 cs, Roche Organon, Inc, Rotterdam
12 cs, Merck & Co, Rotterdam
24 dms, American Express Co, Rotterdam
100 kgs, American Cyanamid & Chem Co, Rotterdam
233 dms, Advance Solvents & Chem Co, Rotterdam
20 kgs, Rotterdam
1,522 dms, E Miller, Rotterdam
80 dms, American Cyanamid & Chem Co, Antwerp
40 cks, Haas Bros, Antwerp
74 cks, American Hawaiian S S Co, Antwerp
CHLORIDE ANHYDROUS—17 cyls, H Warnk, Rotterdam
CINCHONA BARK—190 bls, New York Quinine & Chem Works, Rotterdam
350 bls, New York Quinine & Chem Works, Rotterdam
41 bgs, Guayaquil
PRODUCTS—78 pkgs, R W Greeff & Co, Rotterdam
COALTAR DERIVATIVES—3 cks, General Aniline Works, Rotterdam
INTERMEDIATES—86 dms, 15 cks, General Aniline Works, Rotterdam
13 dms, 82 cks, General Dyestuff Corp, Rotterdam
106 cks, 72 dms, General Aniline Works, Rotterdam
COBALT METAL—135 cks, Central Trading Corp, Antwerp
COCA LEAVES—468 cs, Merck & Co, Rotterdam
COCOA BEANS—7,000 bgs, Wessel, Kulenkampf & Co, Ilheus
1,000 bgs, A C Israel Commodity Co, Ceara
6,000 bgs, Wessel, Kulenkampf & Co, Ceara
2,000 bgs, Nieschlag & Co, Ceara
1,000 bgs, Bankers Trust Co, Bahia
4,000 bgs, Bahia
663 bgs, Lisbon
380 bgs, Struller & Wood, Curacao
80 bgs, Schutte & Focke, Curacao
371 bgs, Curacao
1,000 bgs, Guayaquil
120 bgs, W R Grace & Co, Puerto Cabello
300 bgs, La Guaira
206 bgs, Cape Haitien
5,000 bgs, Nieschlag & Co, Bahia
5,000 bgs, W R Grace & Co, Bahia
1,000 bgs, J Aron & Co, Bahia
4,000 bgs, Bahia
64 bgs, W R Grace & Co, Itacoatiara
COCONUTS — 600 bgs, I L Toledano Corp, Cristobal
2,568 bgs, General Food Corp, Kingston
650 bgs, Universal Import & Export Co, Kingston
447 bgs, I L Toledano Corp, Kingston
COLORS—1 cs, Akatos, Inc, Rotterdam
13 pkgs, General Dyestuff Corp, Rotterdam
1 cs, Hensel, Bruckmann & Lorbacher, Rotterdam
5 cs, M Grumbacher, Rotterdam
ARTISTS—9 cs, Gallagher & Ascher, Rotterdam
COALTAR—2 cks, Progressive Color & Chem Co, Rotterdam
DRY—16 dms, C J Osborn & Co, Rotterdam
EARTH—30 bbls, Penson & Co, Rotterdam
12 bbls, Baltic Shipping Co, Rotterdam
54 cks, National City Bank, Antwerp
COPAIBA BALSAM—5 dms, H F Botzow, Cristobal
3 dms, Cristobal
16 cs, Para
84 cs, Manaos
10 cs, Fritzsche Bros, Cristobal
COPPER ORE RESIDUE—187 bbls, Ore & Metal Corp, Rotterdam
CORK—37 bgs, Mundet Cork Co, Tars-Alba
WASTE—6,039 bls, Mundet Cork Co, Tars-Alba
1,830 bls, Tars-Alba
WOOD—100 bls, National City Bank, Lisbon
825 bls, Tars-Alba
COTTON LINTERS—667 bls, Williamson Prod Co, Santos
2 cs, Santos
1,546 bls, Santos
CUMIN SEED—142 bgs, I Harrison & Whitney, Marseilles
CUTTLEFISH BONES—1,000 pkgs, Marseilles
DEXTRIN—200 bgs, Chemical Bank Trust Co, Rotterdam
80 bgs, Morningstar-Nicol, Rotterdam
POTATO—125 bgs, Stein, Hall & Co, Rotterdam
DIAZO—5 bbls, C Bruning & Co, Rotterdam
DIVI DIVI—1 pkg, H E Botzow, Curacao
DRUGS—2 cs, Winthrop Chem Co, Kingston
DYES, ALIZARIN—68 cks, 13 pkgs, 1 cs, General Dyestuff Corp, Rotterdam
ANILIN—57 bbls, L & R Organic Prod Co, Rotterdam
1 cs, 32 dms, 61 cks, General Dyestuff Corp, Rotterdam
29 dms, 2 bbls, L & R Organic Prod Co, Rotterdam
EGG YOLK, HEN—1 cs, Louis A Gruenvald, Buenos Aires
EPHEDRA—7 bls, Colombo
FENNEL SEED—101 bgs, Peek & Velsor, Bombay
FERTILIZER—1 cs, Buenos Aires
2 cs, Tupman-Thurlow Co, Santos
NITRATE PHOSPHATE—6,500 bgs, Synthetic Nitrogen Product Corp, Antwerp
FILTER PAPER—12 cs, Schneider Bros & Co, Rotterdam
FISH LIVERS — 765 tins, Mitsubishi Shoji Kaisha, Yokohama
FLAXSEED — 1,197 bgs, 2,633 bu, Bunge North American Grain Co, Buenos Aires
500 tons, 20,000 bu, Bunge North American Grain Co, Buenos Aires
470,000 kilos, 18,800 bu, Buenos Aires
672 bgs, 1,478 bu, Buenos Aires
FLEASEED—10 bgs, Marseilles
56 bgs, Kachurin Drug Co, Marseilles
130 bgs, T M Duche & Sons, Bombay
137 bgs, S B Penick & Co, Bombay
FLIES, DRIED—120 bgs, New York & Cuba Mail S S Co, Vera Cruz
GAMBIER—566 bgs, Belawan Deli
210 bgs, E E Androvette, Singapore
GELATIN—239 cks, T M Duche & Sons, Antwerp
POWDERED—48 bbls, T M Duche & Sons, Rotterdam
1 cs, International Selling Corp, Antwerp
9 bbls, 110 bgs, T M Duche & Sons, Rotterdam
55 bbls, T M Duche & Sons, Rotterdam
646 pkgs, International Selling Corp, Antwerp
117 bbls, International Selling Corp, Antwerp
SHEET—20 cs, International Selling Corp, Antwerp
25 cs, T M Duche & Sons, Rotterdam
GLASS, PLATE—16 cs, Brown Bros, Harrimann Co, Antwerp
SHEET—2 cs, C Happel, Rotterdam
1 cs, D C Andrews & Co, Rotterdam
600 cs, National City Bank, Antwerp
WINDOW—55 cs, 12 pkgs, Semon Bache & Co, Antwerp
4,298 cs, S G Cole Co, Antwerp
15 cs, Langlotz & Co, Antwerp
GLUESTOCK—54 bls, Buenos Aires
GLYCERIN—200 dms, Balfour, Guthrie & Co, Buenos Aires
GRAPHITE—1,750 bgs, Mitsui & Co, Dairen
GREASE, WOOL—215 bbls, Robinson-Wagner Co, Antwerp
GUARANA—3 cs, Santiago Development Corp, Rio de Janeiro
GUM—5 cs, Givaudan-Delawanna, Marseilles
43 bgs, Louis A Gruenvald, Buenos Aires
CHICLE—742 bls, Mexican Exploitation Co, Vera Cruz
COPAL—400 bgs, Bank of Manhattan, Antwerp
100 bgs, Stroock & Wittenberg, Antwerp
300 bgs, O G Innes Corp, Antwerp
105 bgs, France, Campbell & Darling, Liverpool
DAMMAR—1,000 bgs, Thurston & Braidich, Batavia
210 bgs, Singapore
100 cs, Chase National Bank, Singapore
100 cs, 427 bgs, S Winterbourne & Co, Singapore
140 cs, O G Innes Corp, Singapore
KARAYA — 140 bgs, F H Wrede & Son, Bombay
597 bgs, Frank Vliet Co, Bombay
599 bgs, Innis, Speiden & Co, Bombay
192 bgs, T M Duche & Sons, Bombay
128 bgs, Thurston & Braidich, Bombay
268 bgs, S B Penick & Co, Bombay
1,332 bgs, Jacques Wolf & Co, Bombay
537 bgs, Paul A Dunkel & Co, Bombay
KAURI—25 cs, France, Campbell & Darling, Auckland
LOCUST BEAN—100 bgs, Marseilles
NISPERO—24 bgs, Chicle Development Co, Cristobal
OLIBANUM—98 bgs, F H Wrede & Son, Bombay
115 bgs, 5 cs, Frank Vliet Co, Bombay
40 bgs, 5 cs, G H Lincks, Bombay
20 cs, Peek & Velsor, Bombay
PERILLA—39 bls, Cristobal
GYPSUM—4,900 tons, United States Gypsum Co, Windsor
HEMPSEED—201 bgs, Mitsui & Co, Dairen
HERBS, MEDICINAL—23 bls, S B Penick & Co, Antwerp
HOOFS—241 bls, Gillespie & Co, Talcahuano
HOPS—90 bls, S S Steiner, Antwerp
20 bls, Bing & Co, Antwerp
20 bls, S S Steiner Co, Antwerp
20 bls, Bing & Co, Antwerp
100 bls, S S Steiner, Antwerp
HYDROGEN CHLORIDE—14 cyls, H Warnk, Rotterdam
INFUSORIAL EARTH—955 bgs, Oran
IPECAC ROOT—17 pkgs, Puerto Limon
IRON, ORE—7,199 tons, Bethlehem Steel Co, Narvik
JALAP ROOT—112 bgs, New York & Cuba Mail S S Co, Vera Cruz
KAMALA—43 bgs, Bombay
LAUREL LEAVES — 98 bls, McCormick Co, Marseilles
LEAVES, MEDICINAL—136 bls, Marseilles
27 bls, Talcahuano
LICORICE, PASTE—2 cs, Rotterdam
ROOT—138 pkgs, P H Petry & Co, Marseilles
LIVERMEAL—496 bgs, Buenos Aires
LOOFAH—16 bls, Irving Trust Co, Kobe
MANGROVE BARK, EXTRACT — 6,600 bgs, Singapore
3,500 bgs, Saxe Cutch Corp, Singapore
MARJORAM LEAVES—400 bgs, Arica
MATCHES, SAFETY — 453 ctns, Guaranty Trust Co, Helsinki
MATE—20 crts, J Victori & Co, Buenos Aires
15 cs, 2 bls, Buenos Aires
MEDICINAL PREPS—10 cs, Kronfeld Saunders & Co, Rotterdam
10 cs, J Personeni, Naples
MENTHOL—55 cs, McKesson & Robbins, Otaru
MICA—31 cs, A O Schoonmaker Insulator Co, Buenos Aires
54 cs, Ford Radio & Mica Corp, Rio de Janeiro
88 cs, American Mica Works, Rio de Janeiro
38 cs, F D Pitts, Rio de Janeiro
31 cs, L P Brueckel, Rio de Janeiro
62 cs, Rio de Janeiro
SCRAP—25 cs, Buenos Aires
MINERAL, CONC—53 dms, Royal Bank of Canada, Buenos Aires
MUSTARD SEED — 645 bgs, National City Bank, Constanza
NAPHTHALENE—500 bgs, L Kruger, Antwerp
OCHER—80 dms, Scott L Libby Co, Marseilles
OIL, ALMOND—25 cs, Ungerer & Co, Marseilles
20 cs, P R Dreyer, Marseilles
CAMPHOR—15 dms, Mitsui & Co, Kobe
3 dms, Guaranty Trust Co, Yokohama
3 dms, Corn Exchange Bank Trust Co, Yokohama
6 dms, Bank of Manhattan, Yokohama
CHINAWOOD—470 tons, Universal Trading Co, Hongkong
250 dms, Wah Chang Trading Corp, Hongkong
90 tons, Wah Chang Trading Corp, Hongkong
CITRONELLA—6 dms, J H Vavasseur & Co, Bombay
COD—550 dms, Corn Exchange Bank Trust Co, Yokohama
60 dms, 32 cks, Atlas Refinery Co, St Johns
106 dms, Slimo Chem Co, St Johns
CODLIVER—250 dms, 100 bbls, C L Huisking & Co, Bergen
120 dms, Norwich Pharm Co, Bergen
30 bbls, Norda Essential Oil & Chem Co, Bergen
181 dms, J D Irwin Co, Bergen
100 dms, M Dennis, Bergen
200 bbls, Chase National Bank, Bergen
9 bbls, Bergen
100 bbls, Kachurin Drug Co, Bergen
100 bbls, Brewer & Co, Bergen
10 crts, Westergaard, Bergen
2 dms, Bergen
COTTONSEED—265 dms, Bank of California National Assn, Pernambuco
ESSENTIAL—36 pkgs, Marseilles
2 dms, 2 cs, Marseilles
57 cs, Rotterdam
38 cs, Marseilles
LAVENDER—11 dms, Chase National Bank, Marseilles
5 dms, Norda Essential Oil & Chem Co, Marseilles
1 dm, Magnus, Mabee & Reynard, Marseilles
17 dms, Corn Exchange Bank Trust Co, Marseilles
LIME—4 cs, Montserrat Co, Port Spain
LUBRICATING — 320 dms, Webbel Service Co, Antwerp
49 dms, M W Parson & Plymouth Organic, Antwerp
50 dms, F A Marsily & Co, Antwerp
60 dms, Kuhne, Libby Corp, Antwerp
OITICICA—97 dms, Ceara
129 dms, Bank of California, Tutoya
OLIVE—260 cs, Thessalonika
10 dms, Piraeus
275 dms, American Express Co, Piraeus
50 dms, J Ossola, Piraeus
200 dms, O Hagen, Piraeus
50 dms, Schroeder Bros, Piraeus
100 dms, Bank of Athens, Piraeus
160 dms, National Bank of Greece, Piraeus
450 dms, Commercial Bank of Greece, Piraeus
65 dms, Ionian Bank, Piraeus
200 dms, Smith Weihman Co, Piraeus
100 dms, La Manna, Azena & Farnan, Sfax
100 dms, Mawer-Gulden-Annis, Sfax
1,500 dms, Guaranty Trust Co, Sfax
200 dms, A Cory, Sfax
200 dms, Leghorn Trading Co, Sfax
25 dms, Sunola Trading Co, Sfax
75 dms, Ossola Co, Sfax
200 dms, J H Schroeder Banking Corp, Sfax
75 dms, W A Taylor Co, Sfax
25 dms, Victor Calderon Co, Sfax
300 dms, Smith Weihman Co, Sfax
30 dms, J H Schroeder Banking Co, Lisbon
100 dms, Atlantic Freighting Co, Lisbon
30 dms, Lisbon
312 bbls, Bank of Athens, Rhi Shymma
50 bbls, National Bank of Greece, Rhi Shymma
675 dms, Bank of Athens, Canea
150 dms, Commi Bank of Greece, Canea
100 dms, Bank of Greece, Canea
100 dms, Ionian Bank, Candia
100 dms, British French Discount Bank, Candia
200 dms, Bank of Greece, Candia
225 dms, National Bank of Greece, St Nikolo
600 dms, Ionian Bank, Piraeus
375 dms, Bank of Greece, Piraeus
315 cs, Genoa
30 cks, Von Bremen Asche De Bruyn, Marseilles
890 cs, Marseilles
10 cks, J P Smith & Co, Marseilles
ORANGE—40 cs, Kingston
PALM—1,000 tons, Belawan Deli
957 tons, Belawan Deli
PERILLA—25,525 kilos, Bank of Manhattan, Rotterdam
244 tons, Mitsubishi-Shoji-Kaisha, Dairen
341 tons, Mitsui & Co, Dairen
PETITGRAIN—25 cs, Ungerer & Co, Buenos Aires
50 cs, Buenos Aires
25 cs, Colgate-Palmolive-Peet Co, Buenos Aires
RAPESEED — 292 tons, Mitsubishi-Shoji-Kaisha, Mozi
ROSEWOOD—20 dms, Manaos
SOYBEAN — 297 tons, Mitsubishi-Shoji-Kaisha, Dairen
ORE—2 cs, Tice & Lynch, Rotterdam
308 bgs, Buenos Aires
OSSEIN—360 bgs, C Moulet, Antwerp
PAPRIKA—30 bgs, Schoenfeld Co, Oran
325 bgs, Oran
23 bgs, J Raphael & Son, Oran
25 bgs, Levy & Levis Co, Oran
PEATMOSS—1,900 bls, Peat Import Corp, Rotterdam
1,350 bls, Premier Peatmoss Corp, Rotterdam
325 bls, Penson & Co, Rotterdam
1,633 bls, Premier Peatmoss Corp, Oslo
740 bls, Premier Peatmoss Corp, Rotterdam
2,394 bls, Halfmoon Mfg & Trading Co, Rotterdam
700 bls, Kaufman Co, Rotterdam
PERFUMERY, SYNTH—6 cs, Lo Curto & Funk, Rotterdam
8 cs, Lo Curto & Funk, Rotterdam
PIMENTO—100 bgs, Mincing Trading Corp, Kingston
50 bgs, J A Manton, Kingston
50 bgs, Barclay Bank, Kingston
866 bgs, United Fruit Co, Kingston
280 bgs, Kingston
PORK LIVER EXTRACT—9 kgs, Lederle Lab, Havana

Under Treasury Decision 49970, United States import and export government records for the time being are not available to the press. Petitions for a modification of the ban have been filed with the department. The Reporter has filed a special brief to meet the needs of the industries it serves. Pending action on its brief, the Reporter will continue to print such data as may be available from other than government sources. Readers desiring to have these data continued as heretofore are requested to send their views to the Reporter for use in the preparation of a supplemental brief.

Editor, O.P.D.R.

POTASH, ALUM—30 cks, American Hawaiian S S Co, Antwerp
CHLORATE—200 bbls, American Hawaiian S S Co, Antwerp
PYRETHRUM FLOWERS—250 bls, S B Penick & Co, Kobe
250 bls, Mitsui & Co, Kobe
QUEBRACHO EXTRACT—18,249 bgs, Tannin Corp, Buenos Aires
4,000 bgs, International Product Corp, Buenos Aires
1,515 bgs, R J Vogel Co, Buenos Aires
1,000 bgs, Bank of London South America, Buenos Aires
7,700 bgs, International Selling Corp, Buenos Aires
4,939 bgs, Tannin Corp, Buenos Aires
QUICKSILVER—50 flasks, Chase Natl Bank, Progreso
106 flasks, Chase Natl Bank, Vera Cruz
RABBIT SKINS—379 bls, Hannel Bennet, Antwerp
RAPESEED—150 bgs, National City Bank, Constanza
RICE FLOUR—550 bgs, Stein, Hall & Co, Rotterdam
ROOT MEDICINAL—60 bls, S B Penick & Co, Marseilles
146 bls, National City Bank, Antwerp
SAGE LEAVES—50 cs, Lekas & Drivas, Piraeus
SALT—501 bgs, Independent Salt Co, Turks Island
SANDALWOOD—200 bgs, Murphy & Beese, Bombay
30 bgs, F W Mead, Bombay
SARSAPARILLA ROOT—26 bls, F W Pabst, Progreso
SAWDUST—380 bgs, State Chem Co, Rotterdam
SCHEELITE ORE—663 bgs, Buenos Aires
SEED MEDICINAL—200 bgs, Bankers Trust Co, Antwerp
SEEDLAC—500 bgs, E E Androvette, Calcutta
SENNA LEAVES—35 bls, Colombo
SOAP—2 cs, Lo Curto & Funk, Rotterdam
SODA CHLORATE—40 dms, H Kempner, Rotterdam
SPONGES—4 bls, Marseilles
38 bls, New York & Cuba Mail S S Co, Havana
34 bls, Havana
15 bls, J H Rhodes & Co, Havana
55 bls, New York & Cuba Mail S S Co, Havana
STARCH, MANIOC—420 bgs, Ceara
POTATO—400 bgs, Stein, Hall Co, Rotterdam
750 bgs, Stein, Hall & Co, Rotterdam
50 bgs, Chase Natl Bank, Rotterdam
50 bgs, Second Natl Bank of Boston, Rotterdam
100 bgs, H S Cramer & Co, Rotterdam
STEARIN—143 tcs, Buenos Aires
SUMAC—1,050 bgs, E E Androvette, Palermo
TALC—1,100 bgs, Dairen
900 bgs, Chase Natl Bank, Dairen
TANKAGE—1,556 bgs, Van Iderstine Co, Buenos Aires
15,228 bgs, Buenos Aires
1,833 cakes, 9 bgs, H J Baker & Bros, Buenos Aires
500 bgs, Wessel, Duval & Co, Buenos Aires
500 bgs, J C Jett, Buenos Aires
583 bgs, Buenos Aires
TANTALITE—49 cs, Carl Marks & Co, Rio Janeiro
TAPIOCA FLOUR—2,997 bgs, Stein, Hall & Co, Batavia
TARTAR—55 bgs, Chas Pfizer & Co, Marseilles
185 bgs, J P Morgan & Co, Lisbon
THALLIUM SULPHATE—6 cs, Foote Mineral Co, Antwerp
THEOBROMINE—50 cks, Rohner, Gehrig & Co, Rotterdam
40 cks, Mallinckrodt Chem Works, Rotterdam
THYME LEAVES—29 bls, J W Lyon, Marseilles
78 bls, Seek & Kade, Marseilles
TIMBO ROOT—1,050 cs, G W Cole & Co, Manaos
TONKA BEANS—28 cks, Port Spain
URANIUM, OXIDE—50 dms, Central Trading Corp, Antwerp
RESIDUE—180 cks, Central Trading Corp, Antwerp
VANADIUM—3,771 pkgs, Vanadium Corp, Calhao
VANILLA BEANS—19 cs, Bank of Manhattan, Marseilles
33 cs, Marseilles
13 cs, Thurston & Braidich, Marseilles
20 cs, Dammann & Smeltzer, Marseilles
13 cs, Dodge & Olcott Co, Marseilles
16 cs, Norda Essential Oil & Chem Co, Marseilles
10 cs, Bank of Manhattan, Marseilles
WAX—3 bgs, General Dyestuff Corp, Rotterdam
BEES—111 bgs, Wessel, Duval & Co, Rio Janeiro
272 bgs, Rio Janeiro
93 bgs, D A Zorillo, Progreso
92 bgs, Chase Natl Bank, Lisbon
80 bgs, Santos
105 bgs, W M Allison & Co, Rio Janeiro
59 bgs, MacMiller Candle Co, Alexandria
215 bgs, San Antonio
2 bgs, Valparaiso
10 seroons, H H Pike & Co, Porto Plata
2 bgs, E Vadillo Ruiz, Havana
19 bgs, E A Bromund, Havana
CANDELILLA—1,268 bgs, M Argueso Co, Progreso
CARNAUBA—154 bgs, Fortaleza
399 bgs, Ceara
222 bgs, Strohmeyer & Arpe Co, Ceara
111 bgs, T G Cooper & Co, Ceara
23 bgs, Smith & Nichols, Ceara
127 bgs, W R Grace & Co, Ceara
56 bgs, Bank of London South America, Ceara
111 bgs, American Cyanamid & Chem Co, Ceara
174 bgs, Ceara
44 bgs, Philadelphia Natl Bank, Ceara
1 bg, Bahia
50 bgs, Chase Natl Bank, Bahia
138 bgs, Bank of London South America, Bahia
42 bgs, Bahia
541 bgs, Strohmeyer & Arpe Co, Tutoya
125 bgs, W R Grace & Co, Tutova
126 bgs, Strahl & Pitsch Co, Tutoya

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WAX, CARNAUBA—107 bgs, American Cyanamid & Chem Co, Tutoya
19 bgs, W M Allison & Co, Tutoya
101 bgs, Innis, Speiden & Co, Tutoya
MONTAN—600 bgs, Strohmeyer & Arpe Co, Rotterdam
225 bgs, Strohmeyer & Arpe Co, Rotterdam
VEGETABLE—200 cs, Bank of Manhattan, Mozi
250 cs, Mozi
100 cs, Chase Natl Bank, Mozi
WHEAT FLOUR—1,440 bgs, Balfour, Guthrie & Co, Buenos Aires
1,588 bgs, Lamport & Holt, Santos
WHITING—4,000 bgs, N H Weitzner, Antwerp
WOLFRAM ORE—185 bgs, Mercantile Metal & Ore Co, Buenos Aires
767 bgs, Buenos Aires
WOODFLOUR—1,660 bgs, Wessel, Duval & Co, Antwerp
600 bgs, Burnet Co, Oslo
502 bgs, B L Soberski, Oslo
ZINC OXIDE—150 bgs, Orbis Product Corp, Marseilles
150 bgs, American Cyanamid & Chem Co, Marseilles

New York Transit Imports

ALUMINUM DIACETYL—4 cs, Lucidol Corp, Rotterdam, Buffalo
2 cs, Lucidol Corp, Rotterdam, Buffalo
CAMPHOR, CRUDE—1,250 cs, Mitsui & Co, Keelung, Rochester
CHEMICALS—2 cs, 1 ck, A W Fenton Co, Rotterdam, Cleveland
OIL, CASHEW SHELL—557 bbls, Irvington Varnish & Insulator Co, Calicut, Irvington
STARCH, POTATO—1,000 bgs, Haberland Mfg Co, Rotterdam, Passaic, N J
WAX, BEES—32 bgs, Van Oppen Co, Alexandria, Syracuse
URICURY—10 bgs, Sterling Prod Co, Rio de Janeiro, Easton, Pa

Baltimore Imports

BONEMEAL—1,000 bgs, Buenos Aires
CALCIUM NITRATE—442 tons, Heroen
SILICIDE—687 bbls, Sauda
CHEMICALS—20 cks, Antwerp
CHROME ORE—2,000 tons, General Refractions, Masinloc
CLAY—330 cks, Rotterdam
FERROMANGANESE—516 dms, 1,450 tons, 422 bbls, Sauda
FULLER'S EARTH—150 bgs, London
FURNACE SAND—550 bgs, Antwerp
IRON ORE—6,243 tons, Leo J Buck, Narvik
5,510 tons, Leo J Buck, Narvik
3,666 tons, Leo J Buck, Narvik
MAGNESITE—20 dms, Rotterdam
CALCINED—86 bbls, Rotterdam
MANGANESE ORE—8,300 tons, Takoradi
6,000 tons, Takoradi
PEATMOSS—550 bls, Rotterdam
3,650 bls, Rotterdam
PYRETHRUM FLOWERS—225 bls, Yokohama
PYRITES—5,824 tons, Sorel
QUEBRACHO EXTRACT—7,463 bgs, Buenos Aires
TANKAGE—1,000 bgs, Buenos Aires
1,016 bgs, Santos
1,000 bgs, Buenos Aires
1,524 bgs, Montevideo

Los Angeles Imports

ACID, STEARIC—3,020 lbs, Kobe
APRICOT KERNELS—400 lbs, Hongkong
ANTIMONY ORE—85,000 lbs, Mexico
CASSIA, ROLL—26,670 lbs, Hongkong
COCONUT, DESIC—15,000 lbs, Philippine Islands
139,500 lbs, Philippine Islands
45,500 lbs, Manila
COPRA MEAL—8,960 bgs, 896,000 lbs, Manila
2,240 bgs, 224,000 lbs, Manila
CUMIN SEED—6,680 lbs, Marseilles
DRUGS—520 lbs, Shanghai
GINSENG ROOT—70 lbs, Seoul, Chosen
HERBS, CRUDE—150 lbs, Shanghai
MOLASSES—36,130 lbs, Barbados
OIL, CHINAWOOD—15 drs, 6,300 lbs, Hongkong
OLIVE—6 drs, 2,430 lbs, Piraeus
PALM—6,230 lbs, London
PEANUT—7,200 lbs, Hongkong
PARAFFIN—3,280 pkgs, 459,200 lbs, Sourabaya
PEPPER, BLACK—225 bgs, 32,630 lbs, Batavia
323 bgs, 70,200 lbs, Sourabaya
QUEBRACHO EXTRACT—658 bgs, 69,550 lbs, Buenos Aires
SAGE LEAVES—2,240 lbs, Patras
SAGO FLOUR—147 bgs, 22,430 lbs, Singapore
SESAME SEED—150 lbs, Yokohama
5,000 lbs, Hongkong
STARCH, POTATO—150 lbs, Yokohama
TALC—200 bgs, 43,760 lbs, Bordeaux
TAPIOCA FLOUR—11,240 lbs, Sourabaya
WHITING, GRD—22,040 lbs, Malmo

New Orleans Imports

BAUXITE ORE—3,347 tons, Paramaribo
COCONUTS—22,825, Fruit Dispatch Co, Swan Island
1,100, Standard Fruit & S S Co, Ceiba
3,770 bgs, Fruit Dispatch Co, Belize
800 sx, J A Manton & Co, Kingston
740 sx, F W Bayer & Co, Kingston
500 sx, Universal Import & Export Co, Kingston
GUM, CHICLE—387 bls, Bluefields

Philadelphia Imports

BAUXITE—1,480 tons, Georgetown
BERYLLIUM ORE—1,412 bgs, Buenos Aires
CANARY SEED—82 bgs, Aschenbach & Miller, Inc, Buenos Aires
CHINA CLAY—895 tons, Fowey
537 tons, Fowey
216 tons, Fowey
CINCHONA BARK—1,307 bls, Merck & Co, Rotterdam
CHROME ORE—1,640 tons, Philippines
1,000 tons, Bank of Athens, Aghia Marina
5,7774 tons, Pastellilo
CLAY, BALL—355 tons, Fowey
CORNWALL—400 tons, Fowey
COCOA RES—300 bgs, Woodward & Dickerson, Rotterdam
COCONUT DESIC—150 cs, Wilbur Ellis & Co, Davao
200 cs, Wilbur Ellis & Co, Davao
50 cs, Wilbur Ellis & Co, Davao
CORK, VIRGIN—2,807 bls, Armstrong Cork Co, Lisbon
WASTE—3,221 bls, National Bank of Commerce, Lisbon
1,789 bls, Crown Cork & Seal Co, Lisbon
13,928 bls, Armstrong Cork Co, Lisbon
3,201 bls, Armstrong Cork Co, Lisbon
WOOD—1,143 bls, Armstrong Cork Co, Seville
1,091 bls, Armstrong Cork Co, Lisbon
DEXTRIN, POTATO—100 bgs, Stein Hall & Co, Rotterdam
FERROMANGANESE—A quantity, Rotterdam
FLAXSEED—1,075 tons, Argentina
SCREENINGS—45 tons, Argentina
GAMBIER—174 cs, American Dyewood Co, Belawan Deli
HOOF MEAL—297 bgs, Buenos Aires
IRON OXIDE, RED—1,500 bgs, Leith
LICORICE ROOT—5,965 bls, MacAndrews & Forbes Co, Izmir
CUTTINGS—642 bgs, MacAndrews & Forbes Co, Izmir
MAGNESITE—30 drs, Rotterdam
MANIOC MEAL—985 bgs, Semarang
MEAKIN MEAL—2,000 bgs, Mitsubishi Kaisha Shoji, Ltd, Seishin
MENTHOL CRYSTALS—75 cs, Mitsubishi Shoji Kaisha, Ltd, Kobe
MOLASSES—1,424,355 gls, Manati
1,400,628 gls, Macoris
NAPHTHALENE—1,250 bgs, J W Hampton, jr & Co, Rotterdam
OIL, NEATSFOOT—54 bbls, Buenos Aires
136 drs, 33 bbls, Buenos Aires
OLIVE—150 cs, Gondrand Shipping Co, Leghorn
175 drs, Seville
PARAFFIN, WHITE—3,200 bgs, Balik Papan
PEATMOSS—600 bls, Rotterdam
500 bls, Marine Midland Trust Co, Rotterdam
PEPPER, BLACK—675 bgs, Oosthaven
WHITE—516 bgs, Tandgong Priok
PETROLEUM, CRUDE—107,448 bbls, Gulf Oil Corp, Las Piedras
110,017 bbls, Gulf Oil Corp, Las Piedras
98,276 bbls, Gulf Oil Corp, Las Piedras
PUMICE, POWD—300 bgs, Chas B Chrystal Co, Inc, Canneto Lipari
PYRITES ORE—8,151 tons, Brittania Beach
A quantity, Huelva
QUEBRACHO EXTRACT—10,250 bgs, The Tannin Corp, Buenos Aires
TALC—100 bgs, Chas Mathieu, Genoa
TANKAGE—500 bgs, Buenos Aires
TAPIOCA FLAKE DUST—333 bgs, National City Bank, Sourabaya
FLOUR—513 bgs, New York Trust Co, Tegal
1,000 bgs, New York Trust Co, Cheribon
750 bgs, Philadelphia National Bank, Cheribon

Exports from U.S. Ports

Baltimore Exports

BARYTES—4,000 bgs, Maracaibo
GREASE, LUBRIC—12,920 lbs, Montevideo
SODA, CAUSTIC—980,000 lbs, Buenos Aires
SUPERPHOSPHATE—6,184,250 lbs, Windsor, N S
TANNERS' BATE, SYNTH—2,366 lbs, Windsor, N S

Los Angeles Exports

ACID, BORIC—5,400 lbs, Buenaventura; 145 bgs, 16,240 lbs, Sydney; 2,200 lbs, Barranquilla
CITRIC—1,120 lbs, Manila
NAPHTHENIC—102 dms, 44,800 lbs, London
ALCOHOL, BUTYL—160 dms, 55,840 lbs, London
ARSENIC, WHITE—6,720 lbs, Buenaventura
ASPHALT—50 bbls, 22,400 lbs, Panama
BARYTES, GRD—1,500 bgs, 150,000 lbs, Havana
BLACK, CARBON—15,000 lbs, Sydney
BORAX—8,400 lbs, Buenaventura; 287 bgs, 32,330 lbs, Sydney; 240 bgs, 26,880 lbs, Melbourne; 2,200 lbs, Barranquilla; 268 cs, 26,800 lbs, Beira; 600 sx, 60,000 lbs, Laurenco Marques
BUTYL ACETATE—60 dms, 22,380 lbs, London
CHEMICALS—3,600 lbs, Sydney
CHROMIC OXIDE—900 lbs, Sydney
CLAY, FILTER, GRD—4,000 lbs, Auckland
GROUND—1,500 bgs, 150,080 lbs, Al Khobar; 8,960 lbs, Karachi
CLEANER—800 lbs, Auckland; 380 lbs, Melbourne
COLOR, DRY—5,180 lbs, Melbourne
COTTON LINTERS—931 bls, 448,000 lbs, Manchester
DIACETONE—28 dms, 11,370 lbs, London
DIATAMACEOUS EARTH—34 bgs, 3,400 lbs, Kingston; 391 bgs, 39,100 lbs, Buenaventura; 1,340 bgs, 134,000 lbs, Havana; 672 bgs, 67,200 lbs, Auckland; 490 lbs Wellington; 200 lbs, Sydney; 112 bgs, 11,200 lbs, Melbourne; 44 bgs, 4,400 lbs, Durban; 694 bgs, 69,400 lbs, Liverpool; 20 bgs, 1,600 lbs, Manchester; 1,000 bgs, 98,500 lbs, Havana
DRUGS, CRUDE—150 lbs, Wellington
ETHYL KETONE—226 dms, 78,620 lbs, London
FIRECLAY—20,300 lbs, Cristobal
FLYSPRAY—300 lbs, Panama
GASOLINE—21,612 bbls, Manila; 11,956 bbls, Cebu; 9,510 bbls, Saigon; 78,065 bbls, Vladivostok; 78,065 bbls, Vladivostok
GREASE—140 pkgs, 21,500 lbs, Panama
HERBS, DRY—1,270 lbs, London
IODINE—200 lbs, Manila; 400 lbs, Hongkong; 100 lbs, Singapore
KEROSENE—9,308 bbls, Manila; 6,276 bbls, Cebu; 13,543 bbls, Saigon; 2,500 cs, Panama
DISTILLATE—105,778 bbls, Curacao
LACQUER—5,770 lbs, Durban
MANGANESE DIOXIDE—50 lbs, Sydney
METHYLETHYL KETONE—322 dms, 117,850 lbs, London
NICOTINE SULPHATE—20 dms, 10,000 lbs, Sydney
OIL, DIESEL—18,957 bbls, Yokohama/Osaka; 30,800 bbls, Osaka; 20,534 bbls, Quepos; 200 bbls, Panama; 24,200 bbls, Vancouver
FISH, FLAKE—625 bgs, 99,720 lbs, Manila
FUEL—2,500 bbls, Quepos; 1,905 bbls, Panama; 34,069 bbls, Balboa
GRAPEFRUIT—110 lbs, Melbourne; 1,110 lbs, London
HAIR—240 lbs, Sydney
LEMON—600 lbs, Auckland; 230 lbs, Sydney; 3,220 lbs, Melbourne; 165 dms, 20,780 lbs, London
LUBRICATING—43 dms, 9,700 lbs, Adelaide; 202 dms, 358 pkgs, Panama
ORANGE—350 lbs, Auckland; 600 lbs, Sydney; 2,040 lbs, Melbourne; 3,870 lbs, London
PEACH KERNEL—210 lbs, Melbourne
ROAD—8,172 bbls, Balboa
SULPHONATED—2 dms, 720 lbs, Auckland
VEGETABLE—3,125 bgs, 500,000 lbs, Barranquilla
PAINT—2,160 lbs, Durban
ASPHALT—44 cs, 3,430 lbs, Panama
PECTIN, CITROUS—2,200 lbs, Sydney; 2,800 lbs, Melbourne; 900 lbs, Capetown; 7,000 lbs, London
PETROLEUM, CRUDE—72,157 bbls, Kawasaki; 89,181 bbls, Tokuyama; 63,750 bbls, Vancouver; 51,600 bbls, Ioco
GAS, LIQ—28 cyls, 6,000 lbs, Auckland; 200 cyls, 8,500 lbs, Sydney; 110 cyls, 3,550 lbs, Melbourne
POLISH—2,660 lbs, Melbourne
POTASH, IODIDE—650 lbs, Manila; 200 lbs, Hongkong
SAND, SILICATE—20,000 lbs, Sydney
SILICA—300 lbs, Wellington; 2,000 lbs, Sydney
SOAP POWDER—4,500 lbs, Havana; 2,250 lbs, Al Khobar
SODA ASH—2,400 lbs, Buenaventura; 280 lbs, Suva; 11,000 lbs, Auckland
BICARBONATE—6,720 lbs, Buenaventura; 13,200 lbs, Cartegena
CARBONATE—2,000 lbs, Sydney
ORTHOPHENYLPHENATE—80 lbs, Wellington
SILICATE—35,000 lbs, Buenaventura; 100 dms, 63,500 lbs, Cartegena
SULPHATE—2,200 lbs, Cartegena
SULPHITE—4,800 lbs, Sydney
SOYBEAN FLOUR—1,470 lbs, Wellington
SULPHUR—11,000 lbs, Buenaventura; 5,200 lbs, Cartegna; 2,200 lbs, Barranquilla
TALC—5,600 lbs, Buenaventura; 15,680 lbs, Havana; 11,200 lbs, Auckland
TOILET PREPS—550 lbs, Sydney; 140 lbs, Guayaquil; 230 lbs, Georgetown; 360 lbs, Port Spain; 260 lbs, Suva; 200 lbs, Sydney; 640 lbs, Manila; 2,700 lbs, Singapore; 1,810 lbs, Bombay; 610 lbs, Cairo
TRIPOLI—260 lbs, Wellington
VALVE GRINDING COMP—30 lbs, Launceston
ZINC OXIDE—2,000 lbs, London

New Orleans Exports

BLUE VITRIOL—179 tons, Puerto Armuelles
CALCIUM ARSENATE—218 tons, Cristobal
GASOLINE—28 tons, Puntarenas
LARD—72 tons, Santiago; 17 tons, Santa Marta; 23 tons, Cartagena; 24 tons, Barranquilla; 72 tons, Cristobal; 17 tons, Puntarenas; 39 tons, Puerto Limon; 40 tons, Havana
OIL, LUBRIC—29 tons, Kingston; 16 tons, Cristobal
PARAFFIN—20 tons, Cristobal; 10 tons, Puerto Limon
ROSIN—10 tons, Cristobal; 34 tons, Havana
SALT—71 tons, Havana
SODA, CAUSTIC—274 tons, Santiago

Coastwise Shipments

Los Angeles Coast Trade

GASOLINE—60,761 bbls, San Francisco; 31,993 bbls, Seattle; 12,342 bbls, Seattle; 7,551 bbls, San Diego; 67,803 bbls, San Francisco; 6,900 bbls, San Diego, 51,703 bbls, Seattle
OIL, DIESEL—2,975 bbls, Seattle; 1,455 bbls, San Diego; 7,074 bbls, Portland; 7,623 bbls, San Francisco; 1,463 bbls, San Diego; 20,271 bbls, Seattle
FUEL—51,941 bbls, San Diego; 20,317 bbls, San Francisco; 48,489 bbls, St Johns; 67,624 bbls; Oleum.; 64,813 bbls, Avon; 60,577 bbls, Portland; 11,994 bbls, Seattle; 1,483 bbls, San Francisco; 2,393 bbls, Portland; 34,000 bbls, Wallbridge; 34,000 bbls, Astoria; 7,168 bbls, Seattle; 66,000 bbls, Sewarren; 71,246 bbls, Boston
FURNACE—2,977 bbls, San Francisco

Imports Detained

Detentions recently effected at various ports by United States authorities on determinations by the Food and Drug Administration that products offered for import were adulterated or misbranded under the Federal food and drug and cosmetic act, or did not comply with other customs regulations, included the following articles for the reason stated:—

New York

Week Ended November 1

Cassia oil, 15 drums; not U.S.P.
Chlorophyl, 1 keg; restricted use.
Cod oil, 55 drums; restricted use.
Digitalis leaves, 2 cases; excessive moisture.
Medicinal preparation, 1 box; new drug.
Shark liver oil, 12 drums; restricted use.

Atlanta

Week Ended November 1

Hair dye, 1 package; false and misleading statements.

Baltimore

Week Ended November 1

Codliver oil, 2 drums; restricted use.

Boston

Week Ended November 1

Cod oil, 8,445 gallons; restricted use.

Los Angeles

Two Weeks Ended October 26

Medicinals, 1,300 pieces; alcohol not declared.
Anise, 15 bgs; filthy and decomposed.
Cumin seed, black, 82 bags; filthy and decomposed.
Cumin seed, white, 18 bags; filthy and decomposed.

Philadelphia

Week Ended November 1

Cocoa beans, 175 bags; water damaged.
Codliver oil, 280 drums; restricted use.
Medicinal preparation, 1 package; new drug.

San Francisco

Two Weeks Ended October 26

Medicinals, 1,840 pieces; false therapeutic claims and phenacetin not declared; slack filled.
Seed, cumin, 200 bags; filthy and decomposed.

Seattle

Two Weeks Ended October 26

Mace, 13 cases; filthy.
Medicinals, 5 pieces; false therapeutic claims.

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Botanical Drugs

Miscellaneous

—*Continued from page 64*

ket held firm following the rise. Reserves were conservative in size.

Lycopodium.—Demand was irregular and compartively light. High prices have checked buyer interest. However, since stocks were small and replacement uncertain, the basic position was one of strength.

Manna.—According to report made by the United States commercial attache at Rome, exports in the first six months of 1939 gained over those for the corresponding period in 1938. The report states further that on the basis of an agreement dated May 26 between the Consortium of Agricultural Producers of Palermo and representatives of manna wholesalers, the sales price for "Cannolo Capaci Corrente" has been established at lire 12.80 per kilo, according to a ministerial decree of July 31, 1939, published in the Official Gazette of August 17, 1939. Latest statistics show that manna pooled during the 1938-39 campaign amounted to 451,827 kilos, of which 328,629 kilos for industrial use and 123,198 kilos for chemical use. It is stated that a total of 385,728 kilos of manna have been released from the central deposit ("Ammasso") from July 1, 1938 to June 30, 1939. Exports of manna during the first six months of 1939, in comparison with the same period of 1938, were:—

	Quintals.
1937—12 months	1,126
1938—12 months	647
1938— 6 months	374
1939— 6 months	578

Roots

Belladonna.—The market was quiet but steady as to demand and price.

Gentian.—It appeared probable that Italy would continue shipments, albeit on a restricted basis and in keeping with the general difficulty in moving goods through the Mediterranean Sea.

Mandrake.—The situation as to stocks was not too satisfactory and conditions appeared to favor firm prices and possible advances should demand for derived products force the issue.

Rhubarb.—Prices were generally on the firm side and latent strength in the market was pronounced. Demand resulted last week in the full maintenance of quotations.

Turmeric.—Prices were strictly nominal. Those with unsold stocks exercised a policy in making sales and offerings. Steady shipment of replacement purchases was doubtful.

Seeds

Anise.—Three varieties were offered on spot. Genuine Spanish seed was priced at 28c. to 28½c. per pound. Mexican goods were available at 17½c. to 18c. Star seed from China was 18c. to 19c.

Canary. — Prices were fractionally lower and reached the following bases: —Argentina and Turkish, 4c. to 4½c. per pound; Morocco, unchanged at 4¼c. to 4¾c.

Caraway.—The market was down slightly to 16c. to 16½c. per pound and was inactive.

Celery. — Quotations continued to slump. French reached 20c. to 21c. per pound and Indian, 16½c. to 17c.

Poppy.—Spot sales were made at 20c. to 20½c. per pound and orders for substantial quantities might be filled out of the fairly ample spot stocks at further concessions.

Spices

Cassia.—Prices were lower. Batavia stood at 18c. to 19c. per pound; short-stick, 14¼c. to 14¾c.; broken, 13½c. to 14c.; China, selected rolls, 10½c. to 11c.; broken select, 11c. to 11½c.; Saigon, unchanged at 16½c. to 18c.

Clove. — Madagascar was down sharply to 20c. to 21½c. per pound. Zanzibar was unchanged at the identif price.

Ginger.—African was shaded to 8c. to 8½c. per pound; Jamaica, bold, 12c. to 13c.; medium, 10c. to 10½c.; bright grinding, 8½c. to 9c.

Paprika.—Hungarian extra fancy was reduced to 39c. to 40c. per pound; medium, 36c. to 37c.; Portuguese, 31½c. to 32c. for extra fancy; fancy, 30½c. to 31c.; Spanish, extra fancy, 40c. to 41c.

Pepper.—Spot black Lampong sank to 3.90c. to 4.10c. per pound. White Java Muntok was off to 8½c. to 9c.; Saigon, 8c. to 8½c. Japanese chillies were reduced to 21c. to 21½c.

Trading in black pepper futures on the New York Produce Exchange from October 28 to November 3, inclusive, comprised 83 contracts, a total of 2,788,800 pounds. Following is a price record for the week:—

	Cents per pound		
	High.	Low.	Close.
January	3.85	3.80	3.85@3.90
March	3.96	3.85	3.94@3.99
April	3.95	3.94	3.99 Nom
May	4.07	4.01	4.04@4.07
July	4.15	3.98	4.12@4.16
September	4.10	4.10	4.20@4.22
October	4.11	4.10	4.25@4.27
December	3.80	3.65	3.80@3.85

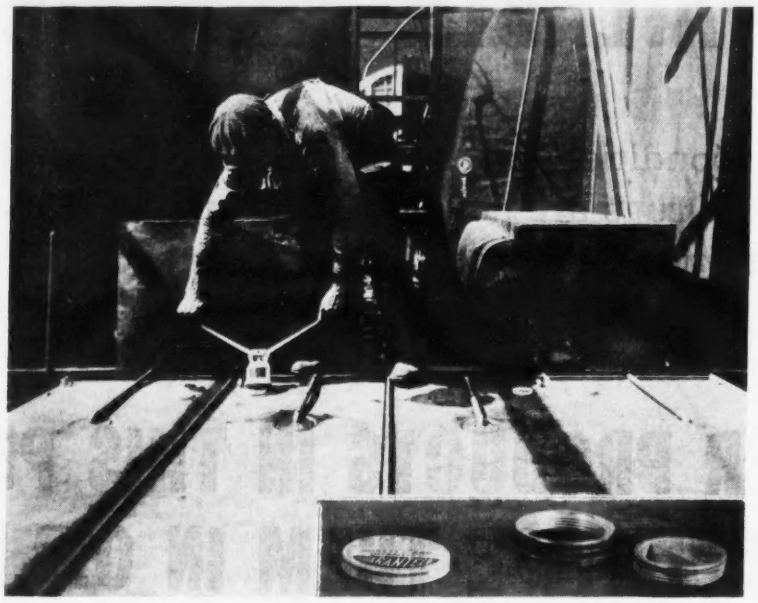
American Flange Supplies Tanks for 'Snow Cruiser'

The American Flange & Manufacturing Company is one of the cooperators in the "Snow Cruiser" project in connection with the forthcoming Byrd Antarctic Expedition, it has been announced. The company is furnishing all the tanks, including the fuel tanks, equipped with "Tri-Sure" closures for the huge vehicle.

The cruiser is an automotive unit fifty-five feet in length, having four pneumatic tires each ten feet in diameter and nearly a yard in cross section. It has a twenty-foot wheel base, is fifteen feet wide, and is powered by means of two diesel engines generating power for electric motors on each of the four wheels. It carries sufficient fuel to enable it to cruise between five and six thousand miles. This fuel supply is storied in several large tanks, each of which will be sealed with "Tri-Sure" closures to prevent contamination and evaporation.

The proposed program for the snow cruiser would be to unload it at the Bay of Whales in the Antarctic as early in the season as the ship could reach that point, and after taking on provisions for a year and a full fuel supply it could start its exploration work. The cruiser would travel south across Amundsen Arm to high barrier to the south of Little America, then southeast across Roosevelt Island and then east onto the Marie Byrd Land pleateu to about 140° west longitude. It would then travel a little east of south to a point 130° west longitude and 85° south latitude. From that point it could travel south to the geographic pole and set up numerous recording instruments. Then continue past the pole north along longitude 75° east to Base III, where a new supply of fuel would be waiting.

After refueling the cruiser would travel eastward in the direction of the south magnetic pole and from there south to the geographic pole, arriving about the first of June. After camping at the geographic pole during the months of June and July the cruiser would start north at 100° west longitude to about 78° south latitude and then northeast to Base II, arriving there about October 1. Then after refueling, it would follow a great circle course in the direction of Base III to where this course crosses 40° west longitude. From there the cruiser would travel northeast to a point about 75° south latitude on the zero meridian and then east at 75° south latitude to 50° east longitude. From this point it would travel a great circle course to Base III. Whether another crossing of the continent was made that season would depend upon the time of arrival at Base II.



Textile Chemists Discuss Investigative Equipment

—*Continued from page 3*

as paints and enamels. Another recent application of these electrodes has been in the manufacture of daylight equivalent lamps for the examination of materials. Visual reaction under these lamps is exactly the same as under average daytime summer sunshine. In addition to furnishing light spectrophotically similar to sunlight, these units provide the advantage over natural conditions of being constantly available and permitting the intensity of light to be accurately controlled, it was said. Such advantages make possible conditions which can be reproduced at will for comparative testing.

The "Projectoscope" was demonstrated by Harry Rolab, of the Rolab Photoscience Laboratories. In the apparatus, the object or material to be projected is held against an aperture where it is illuminated by powerful lamps. This illuminated field is then passed through a system of prisms and lenses and the image is thrown on a screen. Attachments make possible images either by reflected light or transmitted light. Another attachment is designed to hold a sensitized plate, so that photos may be taken of magnified areas.

In the demonstration the image of various types of fabrics were shown on the screen, clearly defining the weave and coloring of the material. Another use for the apparatus displayed was in dermatological studies. The effect of cosmetics and other preparations on the skin can be shown by placing a section of the treated surface in position for projection. Since the equipment does not generate undue quantities of heat, Mr. Rolab pointed out that living or delicate tissues may be viewed in a magnified state for comparatively long periods of time.

The customary monthly dinner of the section preceded the meeting.

N.Y. Oil Trades Ass'n Banquet Well Attended

The Oil Trades Association of New York held its twenty-fourth annual banquet November 1 at the Waldorf-Astoria, this city. The attendance was large, 775 members and guests being present. The number of petroleum men in attendance was greater than usual, representatives of producing and refining companies being here from California as well as the middle West. There were also many members of other branches of the oil industry in attendance from other cities.

Dinner was served at 7:30 p.m. and was preceded and followed by a social gathering. Entertainment consisted of an excellent vaudeville program of about a dozen acts.

R.B.H. Offers New Dispersion

R. B. H. Dispersions, Incorporated, Bound Brook, N. J., has placed on the market a new iron blue, nitrocellulose lacquer base iron blue No. 6150, to replace the company's C. P. Iron Blue No. 2. In only one respect are the two alike, both being simple dispersions of pigments and nitrocellulose, without any entangling plasticizers, oils or resins. Iron blue No. 6150 has vastly superior gloss; cleaner, stronger tints; darker mass-tone and better storage properties.

Obituaries

Charles W. Priddy

Funeral services for Charles W. Priddy, president of the Norfolk fertilizer company bearing his name, were held in Norfolk on October 28. Mr. Priddy, who died October 25, was 75 years old.

Born in Keysville, Va., Mr. Priddy was educated in private schools and the Eastman Business college in Poughkeepsie, N. Y. He entered the fertilizer business in 1883, being employed by Travers, Snead & Company, of Richmond, Va. In 1889 he moved to Greenville, N. C., and organized the Young & Priddy Company, mercantile and cotton brokers. He became associated with the Woolridge Fertilizer Company, Baltimore, in 1893, but three years later went to Norfolk and organized the Pocomoke Guano Company, of which he was president. That company later merged with the American Agricultural Chemical Company.

In 1901 he organized and became president of the Charles W. Priddy Company, dealing principally in the manufacture of agricultural lime and land plaster. In the same year he also formed the Norfolk Bagging Company. Meanwhile he remained as a director of the American Agricultural Chemical Company until 1919, when he severed that connection in order to devote all his time to his own companies and building the fertilizer plant in Norfolk.

He was a member of the executive committee of the National Fertilizer Association from 1922 to 1927 and a member of the soil improvement committee of the Southern Fertilizer Association from 1924 to 1934. He was chairman of the Norfolk regional committee of the old National Fertilizer Association from 1922 to 1925.

Herbert D. Cooley, assistant treasurer of the Utah Copper Company, died in this city October 31. He was fifty-four years of age. Surviving are his wife and a daughter.

Ernest Anthony Honstrater, a supervisor of research in the Bayway Refinery of Standard Oil Company of New Jersey, died October 29 while vacationing in Miami. He has been associated with the Standard Oil Company for twenty-five years.

Harold S. Krauter, chemical engineer for the McLean Products Company, Mamaroneck, N. Y., died November 2 from burns suffered when he fell into a vat of boiling water at the company's plant on October 25. He was 24 years old.

J. N. Ostrofsky, chief chemist for the Rustless Iron & Steel Corporation, Baltimore, was found dead in the bathroom of his suite in a hotel in Detroit on October 26. Surviving are his wife and one child.

Mutual Chemical Writing 1940 Bichromate Contracts

The Mutual Chemical Company of America, bichromate manufacturer, this city, announced November 2 that it was accepting contracts for 1940 on soda and potash bichromate at the same prices as prevailed for 1939.

The company offers its bichromate of soda in car lots at 6¾c. per pound; less car lots, 7c. to 7¼c. per pound; chromate of soda car lots, 8⅛c. per pound, less car lots, 8⅜c. to 8⅝c. per pound and bichromate of potash, car lots, 8¾c. per pound and less car lots, 9c. to 9¼c. per pound. Above prices are for barrels and casks. Paper bags are ⅛c. per pound lower. All prices are f.o.b. works and are subject to the customary quarterly adjustment clause.

N.P.V.L.A. Credit Group Plans Bad Debt Survey

Philadelphia, Oct. 31, 1939

The credits and collection committee of the National Paint, Varnish and Lacquer Association held its regular quarterly meeting recently at the Union League, this city, for the purpose of planning for the next annual survey on bad debt losses. February 15, 1940, was the date set for the beginning of the survey which will cover the fiscal year 1939. Unearned discounts, concerning which a resolution was adopted by the national association, was discussed in connection with the court action now pending against a cigarette company regarding the allowance of a 2 percent discount on unearned discounts.

Industrial Uses of Chemicals and Related Materials

(Formerly Styled "Where You Can Sell")

Producers' Guide to New Markets Technical Information for Processors

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Six-hundred-seventieth Recapitulative Instalment

(Parenthetical references are to the numbers of patents in the United States or other countries, as designated)

N-(4-Acetoacetamidophenyl)thiomorpholin

Photographic

Color-former (Brit. 497463 and 497698) in—
- Color photography (may be incorporated either in the developer or in the emulsion)

Alphagammadiparaisobutylphenyl Glycerylether

Chemical

Starting point (Brit. 499879, 500032, 500033, and 500034) in making—
- Detergents
- Dispersing agents
- Emulsifying agents
- Leveling agents
- Penetrating agents

Aluminum Naphthenate

(Naphtenaluminium, Naphtenate Aluminique, Naphenate d'Aluminuium, Naphtensauresaluminum, Naphtensaurestonerde, Naphtentonerde)

Cellulose Products

Wetting and washing agent (Brit. 417290 and 446757) in—
- Desulphurizing processes for viscose products

Chemical

Catalyst (Brit. 396311) in making—
- High molecular alcohols from fats, oils, waxes, fatty acids

Emulsifying agent for—
- Acetic acid
- Various purposes

Insecticide

Oil-releasing agent (U.S. 1949799) in—
- Insecticidal oil spray for application to sensitive plant foliage, comprising a mineral oil compounded with a small amount of partially esterified glycerol oleate

Lubricant

Emulsifier for—
- Greases
- Oils

Increaser of—
- Viscosity of oils

Ingredient of—
- Castor machine oils
- Castor machine oils (special) (U.S. 1582227 and 1582258)
- Special greases

Thickener for—
- Oils

Miscellaneous

Ingredient (U.S. 1428272) of—
- Coating composition

Toxic ingredient (Brit. 471415 and 491501) of—
- Rotproofing compositions

Petroleum

Stabilizing agent for—
- Lubricating oils
- Lubricating oils (special) U.S. 2001103)
- Transformer oils
- Transformer oils (special) (U.S. 2001108)

Thickener for—
- Oils

Paint and Varnish

Anticorrosive agent in—
- Paints for iron and steel

Antisettling agent for—
- Pigments

Drier for—
- Paints and enamels (said to be unimportant action)

Emulsifying ingredient for—
- Paints and enamels

Flow improver for—
- Paints and enamels

Promoter of—
- Water-resisting properties in paints and enamels

Retarder of—
- Penetration by undercoats and primers

Thickener for—
- Oils

Water-resisting agent in—
- Paints

Paper

Ingredient of—
- Waterproofing compositions for paper

Waterproofing agent for—
- Paper
- Paper products

Rubber

Extender in—
- Rubber batches

Used by Germany during the World War as an "ersatz" material

Textile

Waterproofing agent for—
- Fabrics

Wetting and washing agent (Brit. 417290 and 446757) in—
- Desulphurizing processes for viscose rayon

4-Chlor-6′methoxy-3-methyl-7:8-benzoquinolin

Pharmaceutical

Claimed (Brit. 481874) as—
- Colorless products useful in destroying blood parasites (malarial), amebae, and worm infections

4:8′-Dibenzoylamino-1:1′-dianthrimide

Dye

In dye syntheses

Starting point (Brit. 461432 and 497971) in making—
- Brownish-reds and other anthraquinonoid vat dyestuffs with—
  - Amyl cyanide
  - Benzonitrile
  - Benzyl cyanide
  - Butyl cyanide
  - Decyl cyanide
  - Dodecyl cyanide
  - Ethyl cyanide
  - Heptyl cyanide
  - Hexyl cyanide
  - Methyl cyanide
  - Nonyl cyanide
  - Octyl cyanide
  - Propyl cyanide
- Substitution products of benzyl cyanide

2:6-Dichlorobenzyldecylmethylsulphonium Methylsulphate

Disinfectant

Bactericide (U.S. 2115504) for—
- Coli bacilli (1:1000)
- Diphtheria bacilli (1:10,000)
- Staphylococci (1:10,000)
- Typhus bacilli (1:1000)

Isopropyl Malonate

Chemical

Reactant in—
- Organic syntheses

Food

Volatility reducing agent (Brit. 435272) for—
- Flavoring agents used in food preparations, such as jellies, jams, puddings, desserts, preserves, and the like

Mica

(Continued from October 30 issue)

Paint and Varnish

Enhancer of—
- Dielectric strength
- Durability
- Flexibility
- Protective action
- Resistance to moisture
- Sealing properties
- Strength

Ingredient of—
- Anticorrosion paints
- Fireproof paints and varnishes
- Metal-powder paints
- Priming paints
- Rustproofing paints

Process material in making—
- Lacquer (U.S. 1242592 and 1242593)
- Paint (U.S. 1396986)
- Varnish (U.S. 1242592, 1242593, and 1423985)

Reducer of—
- Abnormal absorption of the medium by porous surfaces
- Chalking tendencies
- Checking effects
- Cracking and splitting phenomena

Paper

Antisticking agent for—
- Bituminized cardboard

Ingredient of—
- Wall coverings (U.S. 1160708)
- Wall finishes (U.S. 1353473, 1477096, and 1513207)

In treating—
- Cardboard (U.S. 1160362 and 1160365)
- Greaseproof paper (U.S. 1357844)
- Paper (U.S. 1160362 and 1160365)
- Pulpboard (U.S. 1160362 and 1160365)

Lustering and ornamentation agent for—
- Paper
- Wallpaper

Plastics

Base material in—
- Miscellaneous synthetic products and compositions of various kinds (U.S. 697696, 764810, 764811, 833401, 847910, 934057, 1003363, 1126161, 1133325, 1196509, 1163434, 1320509, 1349351, 1359685, 1588600, 1589094, 1622795, 1631652, 1645415; Brit. 202232, 220949, and 280189; Canad. 44094, 74950, 147865, 193271, 195694, 202285, 203566, and 262405; French 506354, 515125, and 528891)

Base material in making—
- Bound products
- Built-up products
- Compressed products
- Flexible products
- Laminated products
- Moldable products
- Platelike products

Ingredient of—
- Billiard ball composition (U.S. 1160362 and 1160365)
- Casein composition (U.S. 1437487)
- Celluloid substitute (U.S. 1160362 and 1160365)
- Knife handle (U.S. 1160362 and 1160365)
- Molded and molding compositions (U.S. 1150642, 1160362, 1160365, 1342067, 1357147, 1358394, 1368753, 1409275, 1486208, and 1512024; Brit. 401965)
- Mother-of-pearl substitute and imitation (U.S. 1351529)
- Phonograph record composition (U.S. 1303342)

Process material in making—
- Phenol-aldehyde condensates (U.S. 1242592, 1242593, 1253261, 1310087, 1310088, 1342067, 1345694, 1345695, 1358394, 1368753, and 1374526)
- Pipestem (U.S. 1160362 and 1160365)
- Plastic coating composition (U.S. 1355131)
- Plastics (U.S. 1150642, 1160362, 1160365, 1242422, 1317721, 1367886, and 1512024)
- Shellac substitute (U.S. 1160362 and 1160365)
- Umbrella handle (U.S. 1160362 and 1160365)

Printing

Decorative agent in—
- Lithography
- Printing

Process material (U.S. 1132384) in making—
- Printing plate

Railroading

Filler in—
- Axle greases and packings

Refractories

Process material in making—
- Alumina (U.S. 1286718)
- Firebrick (U.S. 1355689)

Resins

Process material in making—
- Synthetic resins

Rubber

Antifriction agent for—
- Automobile inner tubes

Antitackiness agent for—
- Automobile inner tubes
- Rubber goods

Coating agent for—
- Automobile inner tubes
- Rubber goods

Dusting agent for—
- Automobile inner tubes
- Rubber goods

Filler in—
- Rubber batches
- Rubber tires

Ingredient of—
- Caoutchouc compositions (U.S. 1437487)
- Coating composition for rubber goods (in admixture with petrolatum) (U.S. 1455544)
- Lubricant for rubber surfaces (U.S. 1519547)
- Puncture-sealing compositions (U.S. 1363438, 1509004, and 1519729)
- Rubber composition (U.S. 1493062)
- Rubber substitute (U.S. 1409275)
- Tire-casing powder (U.S. 1519268)
- Tire composition (U.S. 1476381 and 1491569)
- Tire-filler compound (U.S. 1369626)
- Tire-patching compound (U.S.1182698)

Lubricant for—
- Automobile inner tubes

Preventer (U.S. 1469895) of—
- Vulcanization

Stone

Light-reflectant in—
- Artificial granite (U.S. 1209220 and 1317525)
- Artificial stone (U.S. 1187717)
- Building blocks (U.S. 1157437)

Waterproofing agent (U.S. 1270450) for—
- Stone

Textile

In calico printing

Loading agent

Ornamentation agent

Water and Sanitation

Glass substitute (U.S. 1239304) in—
- Water gauges

Starting point (U.S. 1202557) in making—
- Artificial zeolites

Wood

Process material (U.S. 1160362 and 1160365) in making—
- Furniture

Para-aminophenylorthobetacarboxyethylbenzylmethylamine

Photographic

Claimed (Brit. 481275) as—
- Developing agent

Paratolyl Benzoate

Resins

Stabilizing agent (Brit. 492558) for—
- Vinyl resin (said to inhibit embrittling and discoloring influence of light)

Triethylmethyl-Lead

Petroleum

Antiknock agent (Brit. 498509) in—
- Gasoline engine fuels

5167 informative articles that have appeared in the department have been collected in a big book of universal usefulness to producers and users. **You Need It.** **$10** Postage paid in U. S. plus 39c postage elsewhere

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CINCINNATI FIRM established over twenty years and covering the State of Ohio and also Louisville, Kentucky, would be interested in representing A-1 producers of oils, pigments, chemicals or other raw materials. BOX 582, Oil, Paint and Drug Reporter.

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Equipment Offered

FOR SALE—Two 1,000-gallon rubber-lined tanks, one 12,000-gallon rectangular rubber-lined tank, all lined with 3/8 in. gum rubber, practically new. Must be moved quickly. Priced attractively. BOX 587, Oil, Paint and Drug Reporter.

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Crude Petroleum Output Down 5 Percent in 1938

Production of crude petroleum in 1938 totaled 1,214,355,000 barrels, which was 5 percent below the 1937 total, according to the Bureau of Mines. Crude petroleum comprised 92 percent of the new supply of all oils in 1938, the remaining 8 percent consisting of natural gasoline, benzol and imports. With increasing yields and the rapid growth of recycling, the output of natural gasoline rose to 51,347,000 barrels, or 4 percent above 1937.

Most of the States produced less crude oil in 1938 than in 1937, but several reported notable gains. Illinois production in 1938 was 24,075,000 barrels or more than three times what it was in 1937. Arkansas showed a gain of 55 percent over 1937, being placed at 18,180,000 barrels. California's output again rose despite efforts to reduce the daily average to 600,000 barrels or less, being estimated at 249,749,000 barrels. Output in Oklahoma was lower at 174,994,000 barrels. Production in Texas reached 475,580,000 barrels, compared with 510,318,000 in 1937.

Crude runs to stills in 1938 totaled 1,165,015,000 barrels, or between 1 or 2 percent below the record figure of 1937. Most of the decline in gasoline output due to decreased runs was made up in a gain in yield from 43.9 percent in 1937 to 44.3 percent in 1938. Other important changes in yields were gains in gas oil and distillate fuel oil and asphalt of 0.6 and 0.1 percent, respectively, and a decline of 1.1 percent in the residual yield.

Petroleum Residue Produced From American Crude Dutiable

OPD Washington Bureau
October 30, 1939

Petroleum cracking still residue produced from American crude oil is subject to the import tax on petroleum products when returned to the United States, it was decided today by the United States Court of Customs and Patent Appeals in a case brought by the Shell Oil Company of Canada, Ltd.

The company purchased large quantities of crude petroleum in Texas and Louisiana for refining in Montreal, Canada, and shipped the residue to Cleveland, Ohio. It claimed free entry on the ground that the material was the produce of the United States returned to this country without being advanced in value or improved in condition. The court held that regardless of the intrinsic value of the residue as compared with the value of crude oil exported, the residue was not a natural product but was manufactured and therefore does not come within the provision of the tariff law permitting free entry for American goods returned.

Gasoline Freights Lower

Albany, Nov. 1, 1939

The New York Public Service Commission has approved new commodity freight rates on the following:—

Of the Delaware & Hudson railroad on gasoline, and petroleum fuel oil distillate, tankcars, minimum weight subject to Rule 35 of Official Classification, estimated weight 6.6 pounds per gallon; from Schenectady, Albany, Green Island and Troy to Cortland on the Delaware, Lackawanna & Western, 21½c. per hundredweight, reduction 1c. Rate from Schenectady will not apply on petroleum fuel oil distillate. Effective November 18, 1939.

South American Chemical Importers List Available

Lists showing importers of synthetic organic chemicals into Argentina, Brazil and Chile have just been issued. These are available for the nominal charge of 10 cents each upon application to the Chemical Division or any of the district or cooperative offices of the Bureau of Foreign and Domestic Commerce.

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Soda Fluoride Color Urged for Insecticides

The National Association of Insecticide and Disinfectant Manufacturers Association has adopted tinted sodium fluoride as the standard product of the association. This action was taken at a recent meeting of the board of governors of the association, which body passed the following resolution:—

Be it resolved, that the National Association of Insecticide and Disinfectant Manufacturers recommend to its members, and to all other manufacturers of household insecticides containing sodium fluoride, that only sodium fluoride of a nile blue color be used.

The association explained that the nile blue shall be that color officially adopted by the Department of Health of the city of New York and certain other States and municipalities. The association, at the same time, placed emphasis on the resolution to the extent that it was not compulsory for its members to use blue soda fluoride, but rather that the association merely recommended that its members and others use it.

Sulphuric Acid Freights Down

Albany, Oct. 31, 1939

The New York Public Service Commission has approved the following:—

Of the Baltimore & Ohio railroad on sulphuric acid, tankcars, minimum weight subject to Rule 35 of Official Classification, from Buffalo to Salamanca 13c. per hundredweight; reduction 2c. Effective November 18. Of the Erie railroad on the same commodity, same weight classifications, from stations East Buffalo to Black Rock inclusive to Salamanca 13c. per hundredweight. Reductions effective November 23.

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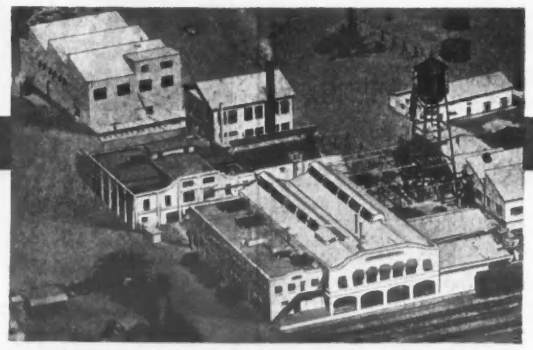

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